

Environmental
Cooperative Agreement

Baseline Report



Blount Station

Madison, Wisconsin





Madison, WI 53701-1231 608-252-7000

your community energy company

Foreword to Environmental Cooperative Agreement Baseline Report for MGE's Blount Station

Madison Gas and Electric Company is your community energy company committed to our environment. We know that how we do business impacts the quality of life for all of us who live and work here.

MGE is taking the next step in environmental leadership, one that reflects the values of our employees and customers. The Company has developed a newly improved, comprehensive Environmental Management System (EMS) that continues to emphasize the environment as part of our everyday actions.

MGE has had a formal environmental management program in place for more than a decade. The new EMS takes the previous program to the next level. It is based on the ISO-14001 model that focuses on continuous improvement.

As a part of the new EMS, we are looking for ways to improve the environmental performance of our Blount Station in downtown Madison. Through an innovative Environmental Cooperative Agreement (ECA) with the Wisconsin Department of Natural Resources and with the help of a Community Environmental Advisory Group, we are committing to superior environmental performance.

The report that follows establishes a baseline for our environmental performance at Blount. It also provides some information on our progress with our ECA to date.

We take our environmental responsibility seriously. From recycling the mercury in customers' old thermostats to promoting the City of Madison's Climate Protection Plan, we care for the environment. We will continue to invest in new and better ways to build our energy future.

Sincerely,

Chairman, President and Chief Executive Officer

kmd

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INTRODUCTION

MGE signed an Environmental Cooperative Agreement (ECA) with the Wisconsin DNR on September 26, 2002. As part of that ECA, MGE committed to provide the Department with a Baseline Report which assesses MGE's progress in achieving its goals and objectives in the ECA. The Baseline Report is due 180 days from the date of signing the Agreement (March 24, 2003), and periodic performance evaluations are due annually thereafter.

This report provides the baseline for the ECA requirements and is divided into the following four areas.

- Progress Report on ECA Requirements
- First Environment, Inc., Report
- Environmental Compliance Audit Results
- Appendix Reports
- Glossary

SECTION 1

ENVIRONMENTAL COOPERATIVE AGREEMENT (ECA) REQUIREMENTS

As part of the Baseline Report, the ECA requires MGE to provide status information on the progress in meeting the goals and objectives of the Agreement. This section serves as the Baseline Report for the continuing progress under the Agreement. The company has initiated many activities and offers the following information on their status. (Note: The actual language in the ECA for each of the following action items is found in the Appendix - Environmental Cooperative Agreement (ECA) Language.)

1. ECA Action Item

DNR notification of new alternate fuels.

Status

MGE has implemented a procedure to address this requirement. See the Appendix - Approval Procedures for New Sources of PDF.

2. ECA Action Item

DNR to grant Tier III storm water permit for Blount.

Status

The new Tier III permit was issued on October 4, 2002; however, the Blount Station will continue to follow the Tier II SW PPP. (See the Appendix - Storm Water Pollution Prevention Plan.)

3. ECA Action Item

Continue CEAG meetings and minutes.

Status

There were 10 meetings held in 2002, and at least three meetings will be held in 2003. As of the date of this report, one meeting has already occurred on February 27, 2003. All the minutes have been posted on the MGE Web site at www.mge.com.

4. ECA Action Item

Commitment to Environmental Management System.

Status

See report of First Environment, Inc., in Section 2.

5. ECA Action Item

No. 8 Boiler Combustion Improvement Study.

Status:

A draft report has been prepared on possible combustion improvements. Currently, MGE and the DNR are discussing the impact of these improvements as they relate to New Source Review (NSR) regulations.

6. ECA Action Item

Pulsers installation.

Status:

An order for the No. 8 Boiler precipitator pulsers has been placed with the manufacturer of the equipment. A firm schedule has not been established pending delivery schedule and the DNR's review of the project as it relates to New Source Review regulations.

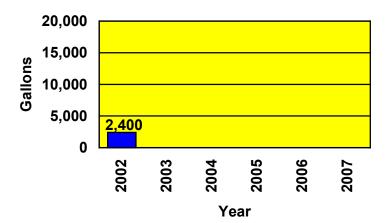
7. ECA Action Item

Purchase biodiesel.

Status

MGE purchased 2,400 gallons of biodiesel in December 2002. Usage will be tracked using the following graph.

Biodiesel Purchases



8. ECA Action Item

Register significant voluntary emissions reductions.

Status

The DNR created a new regulation (NR 437) which specifies the details of how the Voluntary Emission Reductions Registry operates. MGE has been working with DNR and other stakeholders to develop procedures for the Registry. MGE has also participated as a beta-tester of the forms for the registry and suggested improvements to facilitate the registry process. The DNR expects to have procedures for the Registry finalized by summer 2003.

9. ECA Action Item

Backup generator emissions reduction study.

Status

MGE has contracted with GE, Mostardi Platt, and Energy and Environmental Services for a proposal to reduce and monitor diesel generator particulate emissions. Once all the information is gathered, a proposal will be submitted to the DNR for review and approval. It is anticipated that this plan will be provided to the Department in May 2003.

10. ECA Action Item

Blount Station emissions reduction/cost study.

Status

Work has commenced in analyzing a number of future scenarios for the Blount plant. The scenarios include fuel switching at the plant. These include cleaner coal, natural gas, biomass (fuels), installation of additional pollution control measures, installation of alternative technology (e.g., cogeneration and biogasification) and displacement of generation at Blount with energy from other sources. Current work is focused on identifying and documenting key study parameters and assumptions. These include general modeling and economic parameters, generation system planning parameters, transmission system planning parameters, and environmental parameters. This base set of data was completed in February.

11. ECA Action Item

MGE shall increase the fuel source.

Status

The Blount Station has approval to burn the following alternate fuels:

Polyfilm (~17,800 Btu/lb)

Various raw, unprinted and printed polyfilm stock

Paperboard (~11,424 Btu/lb)

Paperboard used for meat (and other) packaging. Paperboard packaging is used for other products like Oscar Mayer lunchables, microwavable meat packages, etc.

Kodak Film (~9120 Btu/lb)

This material is 16mm movie projector film that is taken out of circulation and is being purposefully destroyed. The operation chops film for recycling and separates recyclables from nonrecyclables with the use of a cyclone.

Popcorn Paper (~7879 Btu/lb)

This material is manufactured microwave popcorn packaging that does not satisfy specifications or otherwise becomes damaged or unusable. Specifically, it is (1) paper that is delivered to bagging companies that is found not to meet printing specs or has other defects and is returned (2) paper that is damaged when wound up on six-inch core spools or otherwise found to be defective before it is shipped to bagging companies, or (3) scrap paper that comes from bagging operation that is collected and bailed.

Coated Paper (~9914 Btu/lb)

Manufacturer prints, extrusion-coats, and laminates paper with extruded resins consisting of polyethylene and polypropylene to create (manufacture) ream wrap, sugar packets, and food pouches. The Industrial Process Waste generated comes from trimmings and other production errors or overruns.

Medical Packaging (~17,500 Btu/lb)

Packaging company prints, extrusion-coats, and laminates paper with extruded resins consisting of polyethylene and polypropylene to create medical wrappers for items such as surgical gloves, syringe packs, Band Aids, etc. A majority of the material comes from trimmings, but a small amount comes from errors and overruns.

Feminine Pads/Liners ~13,200 Btu/lb & Adult Diapers (pending ~9043 Btu/lb)

The waste material available is the byproduct of the production of feminine and personal hygiene products. The waste stream includes mostly machine trimmings which come from cutting the pads to their finished size and shape. It also includes some rejected finished product that does not conform to specification.

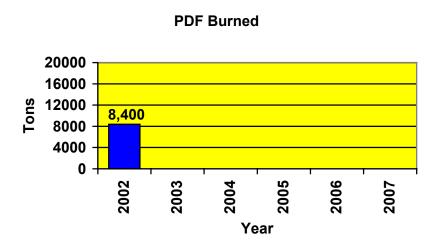
Wax Cardboard 1 (~9630 Btu/lb)

Food processor delivers poultry in various oven-ready forms (for food service or retail). They receive raw, butchered poultry in nonrecyclable polyethylene- and wax-coated corrugated boxes. After the poultry has been removed, the boxes are then shredded, baled, and made available to MGF for use as alternate fuel or landfilled.

Wax Cardboard 2 (~8124 Btu/lb)

Recyclers collect wax cardboard from grocery stores and distributors who receive fruits and vegetables in nonrecyclable wax coated corrugated boxes. After the food products have been removed from the boxes, the boxes are then baled for shipping to Blount.

In 2002, the Blount Station burned 8,400 tons of alternate fuels. The following bar graph will be used to track annual usage.



12. ECA Action Item

Identify MGE and WDNR contact people for ash reuse.

Status

The contact people for ash reuse are as follows:

Tom Bennwitz SCR District Contact Department of Natural Resources (608) 275-3211 bennwt@dnr.state.wi.us

Ed Maass Director – Blount Operations Madison Gas and Electric Company (608) 252-7306 emaass@mge.com

Michael Ricciardi Director – Safety and Environmental Affairs Madison Gas and Electric Company (608) 252-5627 mricciardi@mge.com

13. ECA Action Item

Submit certification for NR 538 ash reuse.

Status

The certification was submitted on January 23, 2003 (see Appendix - Certifications for NR 538 Ash Reuse).

14. ECA Action Item

Beneficial Ash Use Report.

Status:

MGE is reviewing its current disposal contract to determine what options are available to cancel the contract. In addition, MGE and the DNR are working together to determine the best approach for the development of the report.

15. ECA Action Item

Thermostat recycling alert for contractors.

Status

An advertising campaign has been developed for notifying contractors that MGE is a collection site for recycling mercury thermostats (see Appendix - Thermostat Recycling Ad). This ad will run three times in the *Madison Area Builders Association Newsletter*.

16. ECA Action Item

Mercury inventory and removal plan.

Status

A draft plan has been developed and is located in the Appendix as Mercury Management Plan.

17. ECA Action Item

PCB transformers replacement plan.

Status

This plan has been developed and is located in the Appendix - PCB Transformer Plan.

18. ECA Action Item

Hazardous waste minimization review-DNR and UW Education Center.

Status

Jeanne Burns-Frank representing MGE, Brad Wolbert representing the DNR, and David Liebl representing the UW Education Center plan to conduct a facility walk-through in late March or early April. In addition to the Blount Station, the walk-through will include MGE's Central Service Center (CSC) located at 120 South Baldwin and MGE's Fleet Services building located at 1043 East Wilson. The walk-through will be a waste review combined with an inspection. By mid-March, Brad and David will receive a copy of MGE's baseline study, a description of MGE's waste issues at each location, and any other information that will aid them in understanding the facilities and their typical wastes prior to the walk-through. Once they have had a chance to review the information, the walk-through date will be set.

19. ECA Action Item

Storm water demonstration project.

Status

MGE; EarthTech; Storm Water Management of Portland, Oregon; the UW Forest Products Laboratory; and the DNR have been working together to develop a work plan and design for storm water control at 623 East Main Street in downtown Madison—a 66,000-square-foot paved parking lot. (See the Appendix - Stormwater Management Proposal.)

20. ECA Action Item

Heat recovery study and cogeneration study.

Status

These two studies are part of the Blount Station emissions reduction/cost study. Due June 26, 2003.

21. ECA Action Item

Noise concerns procedure.

Status

The noise procedure has been completed and is in the Appendix - Blount Station Noise Response Plan.

22. ECA Action Item

Estimating and reporting PDF emissions.

Status

A spreadsheet has been developed to track arsenic, beryllium, cadmium, and nickel emissions from PDF combustion on a monthly basis. The emissions are calculated based on emission

factors developed by EPRI and based on years of actual stack test data. MGE submitted a letter to the DNR in October 2002 asking permission to use the EPRI-based method in place of the DNR method supplied in the ECA so emissions data is consistent with data submitted to the EPA and the DNR for the Toxic Release Inventory and air emissions inventory. In the letter, MGE asked for written approval from the DNR to use the EPRI-based method to meet the emission tracking requirements in Section XI of the ECA. MGE received written approval on January 28, 2003. A copy of the spreadsheet is located in the Appendix as PDF Emissions.

23. ECA Action Item

Reduce oil and grease sampling frequency from weekly to monthly.

Status

No monthly oil and grease samples have exceeded the permit limit.

24. ECA Action Item

WDNR Assistance Team

Status

The Team has been established and had its first meeting on January 13, 2003. The Team members are as follows:

MGE

Ed Maass – Blount Operations
Jim Montgomery – Facilities
Susan Rosenberg – Air
Bob Patton – Maintenance
Ray Phillips – Air (Title V Permit)
Jeff Marcouiller – Lab Water System
Michael Ricciardi – Environmental
Dan Higgins – Engineering
Jeanne Burns-Frank – Waste Management

DNR

Biren Patel – Air Management
Jim Bertolacini – Storm Water
Dave Hantz – Watershed Management
Kim McCutcheon – Cooperative Environmental Assistance
John Shenot – Cooperative Environmental Assistance
Brad Wolbert – Waste Management

The group agreed to meet at least quarterly. The next meeting is scheduled for April 8, 2003.

25. ECA Action Item

Electronic reporting.

Status

The DNR is currently conducting pilot projects aimed at improving electronic reporting. The DNR, through meetings and communications among the members of the MGE/DNR multidiscipline team, plans to keep MGE appraised of current and future projects. The DNR also discussed including MGE in those pilot projects where appropriate.

26. ECA Action Item

Submit Baseline Report.

Status

This Baseline Report is submitted to satisfy this requirement.

27. ECA Action Item

Respond to comments and suggestions to annual assessment.

Status

The first annual report will not be due until March 24, 2004; however, a draft copy of the Baseline Report was sent on February 19, 2003, to the WDNR and CEAG soliciting their suggestions.

28. ECA Action Item

Posting baseline and periodic performance evaluation reports.

Status

A copy of the Baseline Report will be sent to the Madison Public Library, and the Baseline Report will be on MGE's Web site.

SECTION 2 FIRST ENVIRONMENT, INC., REPORT

Executive Summary

Madison Gas and Electric (MGE) has committed to implementing an Environmental Management System (EMS) that conforms to the ISO 14001 Standard. MGE intends to implement an EMS for the entire company. As a first step, MGE is implementing the EMS at its Blount generating facility. The commitment to modify and improve existing MGE environmental management practices at the Blount facility to make them consistent with the ISO 14001 Standard is an element of the Environmental Cooperative Agreement (Agreement) entered into by MGE and the Wisconsin Department of Natural Resources on September 26, 2002. First Environment was retained by MGE to assess the current status of its ISO 14001 implementation effort at the Blount facility and to provide an opinion as to the likelihood that the effort would be completed by the agreed-upon date of September 26, 2004. This assessment also serves the purpose of documenting the current baseline of EMS development within the stipulated 180 days of signing the Agreement.

Reeva Schiffman and Elizabeth Delaney of First Environment visited the MGE corporate offices in Madison, Wisconsin, on December 11, 2002. Prior to the visit, First Environment reviewed relevant documentation including but not limited to the draft procedures developed to meet the 17 elements of the ISO 14001 Standard and the existing MGE Environmental Management Program. During the site visit, interviews were conducted with employees integrally involved in the development of the EMS and additional relevant documentation was provided and reviewed.

The interviewees were extremely knowledgeable and helpful in clarifying the intended functioning of MGE's EMS. They demonstrated a good understanding of where they stood in the implementation process and recognized the actions necessary to complete the implementation and have a fully functioning ISO 14001 compliant EMS. They provided First Environment with a status summary of progress on each of the ISO 14001 elements. **If implemented as discussed, the system will conform to ISO 14001.**

While still in the design stage of the EMS, MGE has already implemented the ISO 14001 planning element as far as setting objectives and targets. Additionally, some components of communication, training, operational controls, emergency preparedness and response, monitoring and measuring, and record-keeping elements have been implemented with regard to regulatory compliance through the existing Environmental Management Program. Prior to a complete rollout of the EMS, additional work will be required with regard to finalizing the upper-level procedures element and updating the Environmental Compliance Program so as to integrate it fully into the EMS. Additional lower-level noncompliance related procedures also need to be developed where their absence could lead to deviations from MGE's environmental performance objectives.

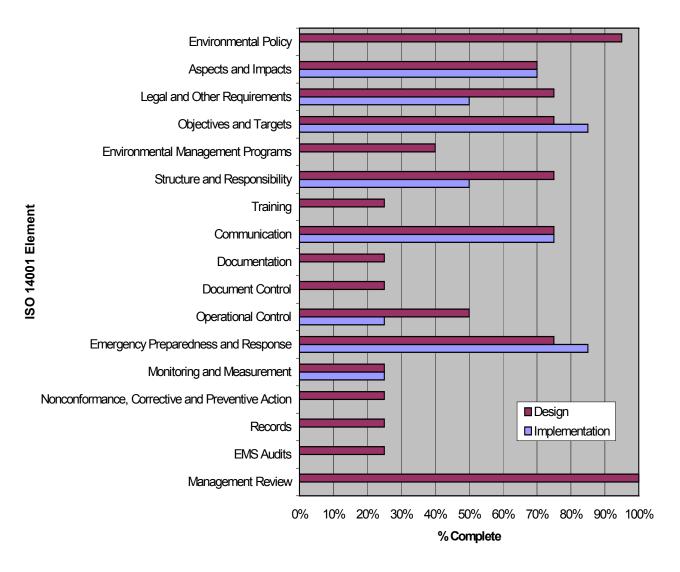
Based on our experience implementing EMSs that conform to ISO 14001, we think MGE should have no difficulty completing the implementation of its EMS within the specified time frames as

long as appropriate resources continue to be made available. We recognize that MGE personnel are busy and completion of the design and the actual implementation will require time and resources. We base this opinion on our experience in:

- Implementing EMSs with numerous clients.
- ISO 14001 third party auditing.
- Operating, for the past five years, our own ISO 14001 certified EMS.

The graph below illustrates MGE's progress on the design and implementation of its EMS. This is followed by specific findings regarding the development of each of the required elements of ISO 14001.

Element By Element Review



Element-by-Element Review

Policy

ISO 14001 Requirements

The ISO 14001 Standard requires that the organization implementing an EMS define and document a policy that includes commitments to compliance, waste minimization, and continual improvement. This must be communicated within and outside the organization. In essence, the policy sets the framework for everything that follows in the EMS and is used to communicate the organization's vision for its environmental performance. The policy, which is made available to the public, should be meaningful both within and outside the organization.

MGE's Status

MGE has taken its various commitments to the environment and consolidated them into a single, easily understood draft policy. The MGE draft policy currently meets the requirements of ISO 14001 with the exception that it lacks a commitment to comply with other requirements which the organization (MGE) subscribes. This commitment is a specific ISO 14001 requirement. Adding this language to the policy will have no impact on the planned implementation of an ISO 14001-conforming EMS. Once modified to meet ISO 14001 requirements, the policy will need to be formally adopted by top management, introduced to the organization, and made publicly available.

Planning Elements

Environmental aspects and significant impacts

ISO 14001 Requirements

ISO 14001 requires that an organization identify and assess its interactions (aspects and impacts) with the environment that result from its operations, services, and products so as to identify those that are important (significant) in a consistent manner. This must be kept current.

MGE's Status

MGE has completed a thorough review of its activities, products, and services and has identified environmental aspects. MGE will continue to refine this aspect identification together with the identification of impacts to ensure a link back to the particular activity, product, and/or service.

Legal and other requirements

ISO 14001 Requirements

ISO 14001 requires an organization to develop a methodology to ensure the organization can access and identify its legal and other organizational requirements. Other requirements refers to

environmental commitments made by the organization that may lie outside strict compliance. These may result from memberships in trade groups or other such organizations or, as in the case of MGE, may derive from an agreement with a third party such as the MGE/DNR Cooperative Agreement.

MGE's Status

MGE has an existing process to identify legal requirements. Safety and Environmental Affairs monitors various sources for regulatory and legal requirements on behalf of MGE and ensures the communication of these requirements to the relevant parties in the corporation. It remains for MGE to document this process as a procedure, assign responsibilities under the procedure, and include a similar process for the identification of any other environmental commitments made by MGE. MGE is also reviewing relevant regulations to ensure a correct baseline of regulatory requirements for the EMS.

Objectives and targets

ISO 14001 Requirements

Under the ISO 14001 Standard, an organization is expected to develop a methodology to set objectives and targets that will ultimately lead to improving environmental performance. The objectives and targets must be documented. This is an ongoing process that results in new objectives and targets being set as old ones are achieved. The selection of objectives and targets is not restricted; however, the organization is expected to consider its policy, significant aspects, impacts, and its legal and other requirements in setting specific objectives and targets.

MGE's Status

MGE uses a planning process whereby overall objectives and targets are set at the corporate level. Each department/area then defines its own specific measurable objectives and targets that contribute to achieving the corporate objectives and targets. This process has been implemented for 2002. The process will be formally documented in a procedure.¹

Environmental management programs

ISO 14001 Requirements

ISO 14001 requires that organizations have a methodology to set up programs designed to achieve objectives and targets.

¹ Documentation of the procedure is not a requirement of ISO 14001; however, MGE has chosen to document through procedures how it meets each of the 17 ISO 14001 elements. Doing so represents a best practice.

MGE's Status

A draft procedure for developing programs to achieve objectives and targets has been developed. It addresses assigning responsibilities and making means available for achieving department/area level objectives and targets as well as the monitoring of progress on achieving objectives and targets. It does not yet address programs to ensure corporate level objectives and targets are met. It is anticipated that this procedure will be redrafted to address this.¹

Implementation and Operation Elements

Structure and responsibility

ISO 14001 Requirements

ISO 14001 requires an organization to identify environmental responsibilities and ensure the availability of adequate resources for the ongoing operation of the EMS. An ISO 14001 Management Representative(s) must be assigned.

MGE's Status

Roles and responsibilities within the EMS have been and continue to be defined as the EMS is developed. Some revisions to what currently exists are planned as procedures are finalized.

Training awareness and competence

ISO 14001 Requirements

ISO 14001 requires that an organization provide two types of training. First, awareness training ensures that employees are aware of the EMS and their respective EMS responsibilities. Second, competency training ensures that employees with environmental responsibilities are capable of performing those responsibilities.

MGE's Status

MGE has set up an ad hoc training group to identify EMS training requirements. The training group is defining mandatory EMS training including operator qualifications. The training department will then tie this training into the HR training software that both identifies and tracks necessary training for MGE. Planned training will take several forms. For example it is anticipated that the existing process of using safety meetings for training will be leveraged to present environmental training. Once the ad hoc group has completed this task, the procedure for identifying and maintaining training will be developed.¹

Communication

ISO 14001 Requirements

ISO 14001 requires that an organization develop (a) procedures(s) for receiving, documenting, and responding to communications from external parties as well as (b) procedures(s) to ensure communication between the various levels and functions of the organization.

MGE's Status

Primary responsibility for internal EMS communication to/from operations lies with the Green Team leaders. External communication will be, among other things, via CEAG and the public outreach processes in the ECA. Internal and external communication processes will be formally documented in a procedure.¹

Environmental management system documentation

ISO 14001 Requirements

The ISO 14001 Standard requires that an organization maintain documentation that describes the management system. Typically this consists of procedures (electronic or paper) that describe each element of the EMS.

MGE's Status

MGE's completed EMS procedures will provide the required system documentation. It is anticipated that once these are completed, they will be housed in the MGE Lotus Notes system.

Document control

ISO 14001 Requirements

The ISO 14001 Standard requires the development of procedures to ensure documents can be located, reviewed and revised as necessary, kept current, and to ensure that obsolete documents are properly handled.

MGE's Status

Ultimately, MGE plans to develop an intranet which will facilitate the sharing of controlled documents across the organization. Until that time, documents will be maintained in a Lotus Notes database, and those who do not have access to the database will have hard copies. MGE will be formalizing its procedure format to ensure consistency throughout the EMS.

Operational control

ISO 14001 Requirements

ISO 14001 requires that the organization define operational controls such as procedures, work instructions, checklists, etc., sufficient to ensure environmental activities are properly performed. These requirements must be communicated to suppliers and contractors when appropriate.

MGE's Status

Regulatory operational control procedures currently exist in the Environmental Compliance Program. It is planned to update these, as necessary, and bring them into the EMS. Green Team leaders are currently in the process of identifying additional operational controls associated with significant aspects that will be developed for their department/areas. It is also planned to rewrite the procedure that addresses the element. MGE is in the process of preparing a contractor booklet which will include safety and environmental requirements.

Emergency preparedness and response

ISO 14001 Requirements

Under ISO 14001, organizations must have procedures to identify the potential for and respond to accidents and emergencies. These must be periodically reviewed and revised as necessary, particularly in response to an incident and tested where practical.

MGE's Status

MGE has extensive emergency plans in place. These include:

- SPCC Plan
- Oil Spill Prevention and Response Plan
- EPCRA Hazardous Materials Response Plan
- Hazardous Waste Contingency Plan

These plans are included in the existing Environmental Compliance Program and will be updated as necessary and integrated into the EMS.

Checking and Corrective Action Elements

Monitoring and measurements

ISO 14001 Requirements

ISO 14001 requires that an organization maintain documented procedures to monitor and measure key characteristics that can or do result in a significant impact on the environment. This

monitoring requirement includes environmental performance, relevant operational controls, conformance with objectives and targets, and regulatory compliance (compliance audits).

MGE's Status

Monitoring and measurement associated with regulatory requirements are included in the Environmental Compliance Program. These will be updated as necessary and brought into the EMS. Additional monitoring and measurement associated with the EMS, such as monitoring of progress toward objectives and targets, will be developed concurrently with the implementation of the EMS. A regulatory compliance audit that will serve as the baseline EMS audit is currently being completed.

Nonconformance and corrective and preventive action

ISO 14001 Requirements

ISO 14001 requires that an organization implement procedures to define responsibility and authority for investigating and mitigating nonconformances.

MGE's Status

MGE will use a multitiered approach to corrective action depending on whether the finding is function specific or nonfunction specific. The Green Team will take the lead in developing corrective actions and will implement them as appropriate. Corrective actions will be tracked in a database

Records

ISO 14001 Requirements

An organization certified to ISO 14001 must maintain procedures for the identification, maintenance, and disposition of records.

MGE's Status

MGE has a corporate records department and associated processes and procedures for the management storage, retrieval, archiving, and destruction of corporate records. Records that will be governed under the EMS have not been fully identified. It also remains to be decided if all or some of them will be handled within the corporate records system.

EMS audits

ISO 14001 Requirements

ISO 14001 requires an organization to establish procedures to periodically audit its environmental management system.

MGE's Status

MGE currently has three draft procedures and extensive EMS audit checklists to support EMS audits. It is planned to streamline these procedures and checklists. The corporate internal audit function will be involved in the systems audits.

Management Review

ISO 14001 Requirements

Under ISO 14001, an organization's top management will periodically review the EMS to ensure that it is serving its function.

MGE's Status

A draft procedure for Management Review has been completed and is ready for rollout.

SECTION 3

COMPLIANCE AUDIT RESULTS AND CORRECTIVE ACTION

Introduction

As part of the Environmental Cooperative Agreement process, an independent auditing firm, Van Breusegen & Associates, Inc. (VBA), evaluated the Blount Station (Blount) to determine its performance with federal, state, and local environmental requirements. The audit was performed by six (6) environmental, health, and safety professionals between December 16 and 20, 2002. The audit involved a physical survey of operations, an extensive examination of relevant records, and interviews of key MGE personnel. VBA has extensive experience in performing environmental audits on industrial operations throughout North America. VBA's statement of qualifications (SOQ) is included in the Appendix.

VBA's audit results are included in the first part of this section. After assessing all applicable regulations, VBA did find some conformance exceptions at Blount. As VBA states in its audit introduction, most of MGE's conformance exceptions were tied to record keeping and reporting. For example, there were several exceptions identified under the Clean Air Act program. All but one involved record keeping matters. The one remaining air issue arose from a change in EPA regulations. The change created an ambiguity in the rules regarding periodic boiler testing. Blount is actually in compliance with the newer version. Regardless, the exception is noted in the report. Based on VBA's experience, VBA concluded that MGE personnel demonstrated a thorough understanding of environmental regulations and considered environmental compliance to be a priority (please see the audit for VBA's full text).

The VBA audit identified areas for improvement. We are pleased that our efforts in training and communicating to our employees on the importance of managing our environmental impacts is reflected in the fact that VBA found no emission limit exceedances or unauthorized release of pollutants.

Nevertheless, we recognize that the appropriate response to these discoveries requires both swift action to immediately correct any problems and long-term solutions that prevent future nonconformance. The immediate corrective action taken on each finding is explained in the Corrective Action table located in the second half of this section.

The long-term solution for preventive actions is our planned implementation of an Environmental Management System (EMS) based on the ISO 14001 EMS model developed by the International Organization for Standardization (ISO).

MGE's ISO-based EMS, which will be implemented within the next year, is designed with improved record keeping and document control in mind. In fact, ISO's 14001 EMS is based on management through documentation, record keeping, and checks and balances to maintain compliance.

In summary, the audit demonstrates a high level of conformance with substantive environmental regulations but identifies a need for improved record keeping procedures at Blount. In this regard, the implementation of MGE's ISO-based EMS will provide the additional procedures needed (beyond the immediate corrective action) to identify and help prevent conformance exceptions. MGE has developed much of the planned ISO-based EMS. Section 2 of the Baseline Report provides a summary and status report on the EMS.

Environmental Audit Report Madison Gas and Electric Blount Generating Station Madison, Wisconsin

December 2002

Prepared for Madison Gas & Electric Madison, Wisconsin

Prepared by Van Breusegen & Associates, Inc. St. Albans, Missouri

VBA Project No. 1639

Introduction

This report summarizes the results of an environmental audit of the Madison Gas & Electric, Blount Generating Station ("Facility") located in Madison (Dane County), Wisconsin. The objective of this audit was to evaluate the conformance status of representative Facility operations with respect to Federal, State of Wisconsin, Dane County and City of Madison statutes, regulations, ordinances and the WDNR/MGE Cooperative Environmental Agreement. The objective of the attached report is to communicate the audit results. This report is not meant to imply legal certification of compliance or non-compliance.

The scope of this audit was generally directed toward Facility operations related to air quality (asbestos, CFCs, construction/operating permits, NSPS, NESHAPs, PSD), emergency planning (EPCRA/CERCLA reporting, SPCC/OPA/FRP, Hazardous Waste Contingency Plans, RMP), regulated materials (PCBs, pesticides, radiation, TSCA/non-PCBs), USTs/ASTs, waste management (hazardous, medical, solid, universal, used oil), and water quality (groundwater, NPDES/SPDES, SDWA, storm water, UIC, wastewater, wells). The period of review was from January 2001 to December 2002. The audit site visit was conducted on December 16-20, 2002. Additional information provided by the Facility as of January 30, 2003 was also reflected in the audit report as appropriate.

The audit was based on a physical survey of the facility and examination of a sample of environmental, administrative and/or operating records, and interviews with key personnel.

This report includes all non-conformance findings identified during the audit, regardless of the significance of the issue. Findings are categorized as "exceptions", which are confirmed instances of non-conformance, or "observations", which are instances where non-conformance is suspected but unconfirmed, or where there is an elevated risk of non-conformance if action is not taken. All findings in this report are exceptions, unless specifically identified as an observation.

Executive Summary

Facility operations reviewed were noted to be in substantive conformance with Federal, State of Wisconsin, Dane County and City of Madison statutes, regulations, ordinances and the Cooperative Environmental Agreement except as provided in the findings table of this report. The 28 findings are summarized as follows:

Program Area	Exceptions	Observations
Air Quality	13	0
Emergency Planning	5	0
Regulated Materials	0	0
USTs/ASTs	0	0
Waste Management	4	0
Water Quality	4	1
Cooperative Environmental Agreement	1	0
Total	27	1

Based upon VBA's experience, MGE personnel have a thorough working knowledge of applicable regulatory requirements and consider environmental compliance to be a priority. MGE personnel demonstrated a thorough understanding of the applicable environmental regulatory programs.

The following table presents the full text of the environmental non-conformance findings that were identified during the audit. Included are the regulatory citations for those findings driven by regulatory requirements. The non-conformance issues are principally associated with recordkeeping and reporting issues. Additionally, it is VBA's understanding that MGE is actively working with the consulting firm, First Environment, to enhance its environmental management system in an effort to bring the existing EMS program up to ISO requirements. This will further improve the facility's recordkeeping and reporting programs.

Topic	Conformance Exception	Recommendation/Comment
Air	Documentation was not available to demonstrate that appropriate employees have been trained on the proper use of the parts washers located throughout the Blount Generating Station, in accordance with NR 423.03(3)(g).	The facility should document the training of appropriate employees in the proper use of the parts washers.
Air – Acid Rain	The January 23, 2002 Recertification Application for Replacement of the SO ₂ Analyzer was not properly signed, certified and submitted by the Designated Representative, as required by Acid Rain Permit Condition 4.b(2) and (3), and by 40 CFR 72.21.	The facility should resubmit the application with the proper signature and certification of the Designated Representative.
Air – Acid Rain	 MG&E failed to conduct periodic NOx emission rate testing of boilers 3 and 6 upon reaching 3000 hours of operation, as follows: Boiler 3 exceeded 3000 operating hours on August 30, 2001; Boiler 5 exceeded 3000 operating hours on May 31, 2002; and Boiler 6 exceeded 3000 operating hours on March 4, 2002. Note: On July 12, 2002, the requirement for testing changed from every 3000 hours to every 20 quarters. The above-listed boilers exceeded 3000 hours prior to the rule change and, therefore, are subject to periodic retesting under 40 CFR Part 75, Appendix E as it was written prior to June 2002. 	MG&E commenced scheduling the retesting of boilers 3, 5 and 6 during the audit comment period.
Air – Construction/ Operating Permits	 The fuel oil certification records do not include all required information, as required by Title V Permit No. 113004430-P01 Condition I.A.3.c(2) and provided by the following examples: May 3, 2002 certification from BP does not include the test method, and does not report the sulfur content in percent by weight (value reported as ppm); Sample results from March 2002 and April 2002 do not report the sulfur content in percent by weight (values reported as ppm), do not clearly identify the analytical method used, do not include a certification of the results and method, and do not appear to be fuel supplier data; and 	 The facility has completed the following corrective actions during the audit comment period: Requested BP clarify the test method used in the May 3, 2002 certification, and requested BP convert the sulfur content results to percent by weight; Certified the March and April 2002 data, converted the results to percent by weight, and noted the test method used; and Applied to WDNR for approval of in-house sulfur analysis of fuel oil, rather than obtaining fuel oil sulfur content results from the supplier.

Topic	Conformance Exception	Recommendation/Comment
	• Sample results from January 2001 and April 2001 do not appear to be fuel supplier data.	
Air – Construction/ Operating Permits	The Annual Compliance Certifications for 2000 and 2001 do not address the compliance status of the following permit conditions, as required by Title V Permit 113004430-P01, Condition I.AB.1.a.(1) and Condition II.N:	The facility should submit amended Annual Compliance Reports for 2000 and 2001 that include all permit conditions and the required certification statement.
	• I.D.1.a.(4);	
	• I.I.1.a.(4);	
	• I.X;	
	• I.AB.2.a.(2);	
	• I.AB.6.a.(2) and (3);	
	• Acid Rain portions of the permit; and	
	Part II: General Conditions.	
	The Annual Compliance Certifications for 2000 and 2001 do not contain the certification statement as stated and required in NR 407.05(4)(j) and 439.03(10).	

Topic	Conformance Exception	Recommendation/Comment
Air – Construction/ Operating Permits	The semi-annual monitoring reports summarize exceedances based on the CEMS, but do not include either monitoring results or a summary of monitoring results for all monitoring, as required by Title V Permit No. 113004430-P01, Conditions I.AB.1.a(1) and II.D.4. The semi-annual monitoring reports do not contain the certification statement as stated and required in NR 407.05(4)(j) and 439.03(10).	 MG&E conducted the following corrective actions during the audit comment period: Recertified the 2002 semi-annual monitoring report on January 30, 2003; and Requested clarification from WDNR regarding the current format of the semi-annual monitoring report. The facility should recertify all semiannual reports submitted since the Title V permit was issued. MG&E should follow up as necessary to the WDNR's response regarding the format of the semi-annual monitoring report.
Air – Construction/ Operating Permits	The facility did not timely submit a waiver request regarding stack tests for particulate matter on Boilers B27, B28 and B29. The waiver was due at least 60 days prior to the required stack test date, or by March 1, 2002, pursuant to NR 439.075(4)(b). The waiver request was not submitted until May 1, 2002.	The facility should ensure that all future stack test waiver requests are submitted at least 60 days prior to the stack test due date.
Air – Construction/ Operating Permits	 The following discrepancies were noted regarding the quarterly excess emission reports (EERs): The facility does not submit an EER for NOx, as required by Title V Permit No. 113004430-P01, Condition I.C.4.c(3) and Condition I.E.4.c(3); The facility has not received written approval from the WDNR to use the summary EER format in place of the full EER format, as required by NR 439.09(10); and The proper certification statement, required by 407.05(4)(j) and 439.03(10), is not signed by the Responsible Official, as required by Title V Permit No. 113004430-P01 Condition II.D.5. 	 MG&E conducted the following corrective actions during the audit comment period: Submitted NOx EERs for 2002; and Submitted proper certification by the Responsible Official for previously submitted EERs. The facility should conduct the following corrective actions: Submit NOx EERs for each quarter since the permit was issued in January 2000; and Seek written approval from the WDNR for use of the summary report EER format.
Air – Construction/	The facility failed to submit the 2003 Annual SO ₂ Compliance Plan by October 1, 2002, as required by Title V Permit No. 113004430-P01,	MG&E submitted proper certifications by the Responsible Official for the 2003 Annual SO ₂ Compliance Plan and the Annual SO ₂

Topic	Conformance Exception	Recommendation/Comment
Operating Permits	Condition I.1.AA.b(1). The Plan was submitted on October 4, 2002. The facility failed to submit the Annual SO ₂ Emission Summary for 2001 by March 1, 2002, as required by Title V Permit No. 113004430-P01, Condition I.1.AA.b(2). The Summary was submitted on July 1, 2002. The 2002 and 2003 Annual SO ₂ Compliance Plans and the 2000 and 2001 Annual SO ₂ Emission Summaries did not contain the certification statement signed by the Responsible Official, as required by NR 407.05(4)(j) and 439.03(10) and Title V Permit No. 113004430-P01 Condition II.D.5.	Emission Summary for 2001 during the audit comment period. The facility should ensure that all future SO ₂ Compliance Plans and Emission Summaries are submitted in a timely fashion and contain the certification statement.
Air – Construction/ Operating Permits	The facility has submitted numerous documents under the Title V Operating Permit that have not been properly certified by the Responsible Official, with the required certification language, pursuant to Title V Permit No. 113004430-P01, Condition II.D.5, and NR 407.05(4)(j) and 439.03(10). The following documents are examples: • 2000 and 2001 Annual Emission Inventory Reports; • 2002 RATA submittals on April 30, 2002 and June 6, 2002; • RATA notifications submitted on March 26, September 6 and November 20, 2002; and • All Quarterly Excess Emission Reports for 2001 and 2002. Note: Every document submitted under the Title V Permit shall be certified by the Responsible Official.	 MG&E submitted the proper Responsible Official certification for the following documents during the audit comment period: 2001 Annual Emission Inventory Report; January, April and June 2002 RATA submittals; March, September and November 2002 RATA notifications; and All previously-submitted quarterly EERs. The facility should properly recertify the 2000 annual emission inventory report.

Topic	Conformance Exception	Recommendation/Comment
Air – Construction/ Operating Permits	The facility did not review and update the Malfunction Prevention and Abatement Plan, last updated in 1993, at least every 5 years, as required by Title V Permit No. 113004430-P01, Condition II.F and NR 439.11. The facility did not have an Emission Control Action Plan, as required by Title V Permit No. 113004430-P01, Condition II.G and NR 493.04.	The facility updated the Malfunction Prevention and Abatement Plan during the audit comment period. The facility should date the updated plan to ensure it is reviewed and updated at least every 5 years. The facility developed an Emission Control Action Plan during the audit comment period. The following actions should be taken regarding the Emission Control Action Plan: Ensure that a copy of the Emission Control Action Plan is available at all times at the Blount Facility; and Ensure that a description of the Emission Control Action Program and details related to specific functions are posted at the locations of each specific function in the generating station.
Air – Construction/ Operating Permits	Documentation was not available to demonstrate that the WDNR is notified of each opacity exceedance greater than 10% of the limit on the next business day following the onset of the event, in accordance with NR 439.03(4).	The facility should develop a form to document notifications made to the WDNR, and ensure notifications are made in a timely manner.
Air – QA/QC Manual	 The following discrepancies were noted regarding operation and maintenance schedules for the CEMS, established in the QA/QC Manual required by NR 439.09(8): Review of 2001 Weekly Boiler Analyzer Check Sheets indicated that three weekly checks were missed for boilers 7 and 9 between January 2001 and January 2002, and one weekly check was missed between June 2001 and October 2001; The Quarterly Analyzer Checklists completed for all Boilers in 3rd quarter and 4th quarter 2001 were conducted less than 60 days apart; the QA/QC Manual states that the Checklists shall be completed quarterly, at least 60 days apart; The Calibration Tracking Forms for cylinders ALM054982, ALM038350, ALM030349, and ALM056865 were missing either 	 The facility should conduct the following corrective actions regarding the QA/QC Manual: Attempt to locate the missing Weekly Boiler Analyzer Check Sheets; Conduct training for all CEMS personnel to ensure awareness of all QA/QC Manual requirements; and Set up a QA/QC Manual recordkeeping system that will ensure all documents are maintained and readily available. Note: The QA/QC Manual calls for numerous activities on a daily, weekly, monthly, quarterly, semi-annual and annual basis. Not all documentation was reviewed due to lack of time and/or lack of documentation availability. An intensive audit on the

Topic	Conformance Exception	Recommendation/Comment
	the final pressure, the removal date or both, and therefore it could not be determined if the cylinders were used beyond the expiration date and/or below 150 psi, the limit below which the QA/QC Manual states the cylinder must not be used; and	CEMS program should be considered; during the audit comment period, MG&E personnel indicated their intention to conduct this review with the assistance of outside personnel.
	The Calibration Tracking Form for cylinder ALM031935 stated that the final pressure of the cylinder when removed from service was less than 150 psi, below the limit of 150 psi set by the QA/QC Manual.	
Emergency Planning – EPCRA/ CERCLA	The following deficiencies were noted regarding hazardous substances observed at the Blount Generating Station that were either not included in the Tier II reports submitted by MG&E for reporting year 2001, or improperly reported, as required by 40 CFR 370.25(a):	The facility should amend the Tier II report for 2001 to address the noted deficiencies.
	Dielectric oils and lubricating oils (i.e., new and used), located throughout Blount Generating Station;	
	Reporting of coal does not include location codes for wastewater treatment solids at the wastewater treatment plant; and	
	Deionization media.	
Emergency Planning – SPCC/OPA/ FRP	The SPCC Plan for the Blount Generating Station does not include all oil storage areas with potential for discharge by "spilling, leaking, pumping, pouring, emitting, emptying or dumping" as required by 40 CFR 112.7, including the following:	The facility should revise the Blount Generating Station SPCC Plan to include all oil storage areas and all loading/unloading operations.
	Oil-filled equipment other than turbines, such as hydraulic reservoirs on elevators or cranes; and	
	Oil loading and unloading operations.	

Topic	Conformance Exception	Recommendation/Comment
Emergency Planning – SPCC/OPA/ FRP	The Blount Generating Station has the following discrepancies regarding secondary containment or diversionary structures:	The facility should install appropriate secondary containment or diversionary structures for all oil transfer locations.
	• The floor of the containment area for the 500,000 gallon fuel oil tank is comprised of gravel/earthen material. The SPCC Plan does not address the permeability of the gravel/earthen material (40 CFR 112.7(e)(2));	The SPCC Plan should be revised to address permeability of the gravel/earthen material used for secondary containment. The containment volume should be re-assessed to ensure
	The oil transfer locations at Blount Generating Station are not secondarily contained (40 CFR 112.7(e)(3)); and	adequacy. Such assessment should be included in the SPCC Plan.
	The SPCC Plan does not discuss containment volume for those storage areas located within secondary containment (40 CFR 112.7(e)(2)).	
Emergency Planning –	The Blount Generating Station SPCC Plan has the following discrepancies and/or deficiencies:	The facility should revise the SPCC Plan to address the listed deficiencies.
SPCC/OPA/ FRP	The Plan does not follow the sequence outlined in 40 CFR 112, nor does it contain a cross-reference table;	
	The Plan is not sealed by a professional engineer, as required by 40 CFR 112.3(d);	
	The Plan does not discuss current management approval of the Plan and authority to commit resources to implement the Plan, as required by 40 CFR 112.7;	
	• The plan does not address the spill potential, the predicted rate of flow or quantity discharged from oil storage and transfer operations, as required by 40 CFR 112.7(b);	
	The Plan does not discuss the method by which containment dikes are drained, as required by 40 CFR 112.7(e)(1);	
	The Plan does not discuss fail-safe engineering, materials of construction compatibility or integrity testing for the aboveground storage tanks, as required by 40 CFR.7(e)(2);	
	The Plan does not contain DOT procedures for oil loading and	

Topic	Conformance Exception	Recommendation/Comment
Emergency Planning – SPCC/OPA/ FRP	 unloading operations, as required by 40 CFR 112.7(e)(4); The Plan does not discuss the security of drain valves or pump controls, as required by 40 CFR 112.7(e)(9); and The Plan does not include inspection procedures, and does not designate the current personnel responsible for oil spill prevention, as required by 40 CFR 112.7(e)(10). The Blount Generating Station has the following deficiencies in the implementation of the SPCC Plan: The facility does not have signage or a means of preventing bulk tankers from departing prior to disconnection, as required by 40 CFR 112.7(e)(4); and Inspections are either not conducted or not properly documented, signed and incorporated into the SPCC Plan, as required by 40 CFR 	 The facility should implement the following corrective actions: Implement measures to prevent departure of an oil transport vehicle prior to disconnection from a storage tank; and Conduct inspections at the frequency established in the SPCC Plan, properly document and sign the inspections, and incorporate the inspections into the SPCC Plan.
Waste – Hazardous	 The Blount Generating Station operated as a small quantity generator of hazardous waste during 23 of 24 months of review. The following deficiencies and discrepancies were noted regarding the facility's hazardous waste management program as required by NR 610.08 (1)(w)and (2)(a): Emergency procedures (name and telephone number of the emergency coordinator, emergency numbers, emergency coordinator and location of fire extinguishers) were not posted near the telephone in the Blount Generating Station; and Weekly container inspections were not documented for the Blount Generating Station. 	The facility should post emergency procedures next to the telephones in the Blount Generating Station. Weekly inspections should be conducted and documented of the hazardous waste storage areas in the Blount Generating Station.

Topic	Conformance Exception	Recommendation/Comment
Waste – Hazardous	 The facility has not characterized or documented characterization of the following solid wastes as hazardous, non-hazardous, universal, special or exempt, as required by NR 610.05: Spent paint filters generated in the Blount Maintenance Shop have been characterized as non-hazardous, but the characterization has not been documented; and Floor sweepings/grinding debris containing residuals from welding 	The facility should characterize the noted wastes using process knowledge and/or analysis. Additionally, the facility should provide documentation of the waste characterizations in on-site files.
	and maintenance operations throughout the facility have not been characterized.	
Waste – Hazardous	The Blount Generating Station operated as a large quantity generator of hazardous waste during April 2001. The following deficiencies and discrepancies were noted regarding the facility's hazardous waste training, required by NR 630.16(4):	The facility should amend the training records to include the items noted.
	Training records do not include the job title for each position at the facility related to hazardous waste management and the name of the employee filling each job; and	
	• A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed above.	
Waste – Hazardous	The following deficiencies / discrepancies were noted regarding on-site waste management of mercury-containing spent lamps by the facility:	The facility should manage spent lamps in closed containers labeled with the words "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)". The facility should mark each
	• Storage containers located in the Blount Generating Station were not labeled with the words "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)" as required by 40 CFR 273.14 (e);	container with an accumulation start date and manage the used lamps within one year.
	 Mercury lamps or containers or packages in which such lamps were contained were not labeled or clearly marked with the accumulation start date as required by 40 CFR 273.15(c). The facility was unable to demonstrate the length of time that the universal waste had been accumulated; and 	The facility should ensure all spent lamp management practices are in accordance with the WNDR guidance or the hazardous waste regulations.
	Several containers of used lamps were not maintained closed as	

Topic	Conformance Exception	Recommendation/Comment
	required by 40 CFR 273.13 (d).	
	Note: Spent lamps have not been formally adopted into the state universal waste program. However, WNDR guidance issued in 1993 allows for management of spent lamps in a less burdensome manner provided the lamps are sent off-site for recycling. The guidelines are similar to federal universal waste regulations.	
Water – SDWA	OBSERVATION Two drinking water fountains at the Blount Generating Station were observed to have point-of-use treatment devices, potentially qualifying the facility as a Public Water Supplier (i.e., providing treated water to more than 25 persons). Based upon phone discussions with the WDNR, point-of-use treatment devices are only regulated by the WDNR when utilized to remove "contaminants" from water and not when utilized for "aesthetic purposes" in conjunction with water supplied by an approved Public Water System. It is the auditors' understanding that the point-of-use filters are for aesthetic purposes.	The facility should document in appropriate files that all point-of-use devices at the Blount Generating Stations are utilized for aesthetic purposes.
Water – WPDES	The following deficiencies were noted regarding the Blount Generating Station's Discharge Monitoring Reports and backup documentation: • Laboratory reports from December 2000 until June 8, 2001 did not include the name of the person conducting the analysis, as required in the WPDES permit;	The facility should conduct awareness training on wastewater sampling and documentation procedures to ensure that all DMRs, chains of custody and back-up documentation are properly completed and maintained for all future sampling events.
	Two chain of custody forms (June 2002 and November 2002) did not include the name of the person obtaining samples as required in the WPDES permit;	
	• Five chain of custody forms were missing signatures, dates, and/or times in the sample relinquishment space. These forms include April 25, 2001, May 1, 2001, May 30, 2001, October 17, 2001 and July 2002; and	
	Back-up data for the first two weeks of November 2001 (laboratory reports and chain of custody forms) are missing from the files. The	

Conformance Exception	Recommendation/Comment
permit requires that these records be maintained for a minimum of 3 years.	
The facility currently flushes accumulated debris from the condenser water intake screen back into Lake Monona, rather than removing the material from the screen and disposing of the material in a manner that prevents the material from entering the Lake, as required by the WPDES Permit WI-0001961-6 Page 2, Condition (2).	The facility should cease the practice of flushing the material into Lake Monona and begin removal and proper disposal of the material.
The delegation of signature authority, required by WPDES Permit WI-0001961-6; page 5; Reporting and Monitoring Requirements (1)(c), could not be produced during the audit, and is no longer valid as it predates Waldron as vice-president.	The facility should properly establish a current delegation of signature authority.
The wastewater sample collection refrigerators at the Blount Generating Station for outfalls 001 and 008 were observed to have temperatures of 5 and 7 degrees F, respectively. This is above the maximum temperature of 4 degrees F required for Total Suspended Solids sample storage by 40 CFR 136.	The facility should ensure that the refrigerators are maintained at no higher than 4 degrees F.
 MGE committed to purchase biodiesel for its Central Service Center pursuant to Section IX.A.3 of the Cooperative Agreement unless it was not reasonably available or it was uneconomical. During October and November 2002, the auditor was informed by MGE personnel that biodiesel fuel was not reasonably available from the fuel supplier used by MGE at that time. Fuel purchases in December 2002 consisted of either pre-blended No. 2 Diesel / biodiesel (80:20 ratios) or of No. 1 and No. 2 diesel and biodiesel blended at the diesel tank located at the Central 	The auditor was informed by MGE that is has been industry practice that 100% biodiesel fuel not be utilized in diesel engines. It was MGE's understanding when entering into the Cooperative Agreement that fuel blends such as 20% biodiesel and 80% No. and/or No. 2 fuel were acceptable. MGE should clarify this understanding with the WDNR in writing.
	permit requires that these records be maintained for a minimum of 3 years. The facility currently flushes accumulated debris from the condenser water intake screen back into Lake Monona, rather than removing the material from the screen and disposing of the material in a manner that prevents the material from entering the Lake, as required by the WPDES Permit WI-0001961-6 Page 2, Condition (2). The delegation of signature authority, required by WPDES Permit WI-0001961-6; page 5; Reporting and Monitoring Requirements (1)(c), could not be produced during the audit, and is no longer valid as it predates Waldron as vice-president. The wastewater sample collection refrigerators at the Blount Generating Station for outfalls 001 and 008 were observed to have temperatures of 5 and 7 degrees F, respectively. This is above the maximum temperature of 4 degrees F required for Total Suspended Solids sample storage by 40 CFR 136. MGE committed to purchase biodiesel for its Central Service Center pursuant to Section IX.A.3 of the Cooperative Agreement unless it was not reasonably available or it was uneconomical. • During October and November 2002, the auditor was informed by MGE personnel that biodiesel fuel was not reasonably available from the fuel supplier used by MGE at that time. • Fuel purchases in December 2002 consisted of either pre-blended No. 2 Diesel / biodiesel (80:20 ratios) or of No. 1 and No. 2 diesel

Limiting Conditions

The following limiting conditions were encountered during the audit, and should be noted:

- MG&E document management procedures affected the overall efficiency of the audit process;
- A comprehensive visual inspection of all storage rooms, closets, etc., in accessed areas was not conducted due to time constraints;
- A comprehensive audit of the CEMS QA/QC Manual and Program was not conducted due to time constraints and unavailable documents; and
- It is important to recognize that due to practical constraints, this report presents general conclusions and does not necessarily identify all potential issues.

Corrective Action

The following table identifies each exception noted in the audit and describes the corrective action for responding to each exception. A majority of the items have already been corrected. (Note: all items in blue have been corrected.)

Air Quality Corrective Action

Topic	Conformance Exception	Corrective Action	Status
Air	Documentation was not available to demonstrate that appropriate employees have been trained on the proper use of the parts washers located throughout the Blount Generating Station, in accordance with NR 423.03(3)(g).	NR423.03(3)(g) requires supervision or instruction adequate to ensure proper use of the parts washer. MGE will train all parts washer users and post instructions at parts washers with the following information:	Completed
		• Close the cover whenever parts are not being handled in the cleaner.	
		• Drain the cleaned parts for at least 15 seconds or until dripping ceases.	
		• Store waste solvent only in covered containers. All solvent must be disposed by Safety-Kleen.	
Air – Acid Rain	The January 23, 2002 Recertification Application for Replacement of the SO ₂ Analyzer was not properly signed, certified and submitted by the Designated Representative, as required by Acid Rain Permit Condition 4.b(2) and (3), and by 40 CFR 72.21.	Application was resubmitted with the proper signature and certification of the Designated Representative.	Completed

Topic	Conformance Exception	Corrective Action	Status
Air – Acid Rain	MGE failed to conduct periodic NO _x emission rate testing of boilers 3 and 6 upon reaching 3000 hours of operation, as follows:	NO _x testing for Boilers 3 and 6 was completed the weeks of January 20 and 27.	Completed
	• Boiler 3 exceeded 3000 operating hours on August 30, 2001;	Testing for Boiler 5 was initiated on March 14, 2003.	Completed
	Boiler 5 exceeded 3000 operating hours on May 31, 2002; and		
	• Boiler 6 exceeded 3000 operating hours on March 4, 2002.		
	Note: On July 12, 2002, the requirement for testing changed from every 3000 hours to every 20 quarters. The above-listed boilers exceeded 3000 hours prior to the rule change and, therefore, are subject to periodic retesting under 40 CFR Part 75, Appendix E as it was written prior to June 2002.		
Air – Construction/ Operating Permits	The fuel oil certification records do not include all required information, as required by Title V Permit No. 113004430-P01 Condition I.A.3.c(2) and provided by the following examples:		
	May 3, 2002 certification from BP does not include the test method, and does not report the sulfur content in percent by weight (value reported as ppm);	Requested BP clarify the test method used in the May 3, 2002, certification, and requested BP convert the sulfur content results to percent by	Completed
	Sample results from March 2002 and April 2002 do not report the sulfur content in percent by weight (values reported as ppm), do not clearly identify the analytical method used, do not include a certification of the results and method, and do not appear to be fuel supplier data; and	weight. Certified the March and April 2002 data, converted the results to percent by weight, and noted the test method used.	Completed
	Sample results from January 2001 and April 2001 do not appear to be fuel supplier data.	Applied to WDNR for approval of in-house sulfur analysis of fuel oil rather than obtaining fuel oil sulfur content results from the supplier.	Completed

Topic	Conformance Exception	Corrective Action	Status
Air – Construction/ Operating Permits	The Annual Compliance Certifications for 2000 and 2001 do not address the compliance status of the following permit conditions, as required by Title V Permit 113004430-P01, Condition I.AB.1.a.(1) and Condition II.N:	Submitted Annual Compliance Report for 2002 that included all permit conditions and complete certification statement.	Completed
	• I.D.1.a.(4);		
	• I.I.1.a.(4);		
	• I.X;		
	• I.AB.2.a.(2);		
	• I.AB.6.a.(2) and (3);		
	Acid Rain portions of the permit; and		
	Part II: General Conditions.		
	The Annual Compliance Certifications for 2000 and 2001 do not contain the certification statement as stated and required in NR 407.05(4)(j) and 439.03(10).	Resubmitted Annual Compliance Reports for 2000 and 2001 that include all permit conditions and the required certification statement.	Completed
Air – Construction/ Operating Permits	The semi-annual monitoring reports summarize exceedances based on the CEMS, but do not include either monitoring results or a summary of monitoring results for all monitoring, as required by Title V Permit No.	Submitted Semi-Annual Monitoring Report for 2002 with complete certification statement. Included certification for previous semi-annual report submitted for 2002.	Completed
	113004430-P01, Conditions I.AB.1.a(1) and II.D.4. The semi-annual monitoring reports do not contain the certification statement as stated and required in NR	Resubmitted Semi-Annual Monitoring Reports for 2000 and 2001 with complete certification statement.	Completed
	407.05(4)(j) and 439.03(10).	Requested clarification from WDNR regarding the current format of the semi-annual monitoring report.	Completed

Topic	Conformance Exception	Corrective Action	Status
Air – Construction/ Operating Permits	The facility did not timely submit a waiver request regarding stack tests for particulate matter on Boilers B27, B28 and B29. The waiver was due at least 60 days prior to the required stack test date, or by March 1, 2002, pursuant to NR 439.075(4)(b). The waiver request was not submitted until May 1, 2002.	Tickler file created for future particulate testing. Includes reminder to submit waiver request with final test results to Wisconsin DNR.	Completed
Air – Construction/ Operating Permits	 The following discrepancies were noted regarding the quarterly excess emission reports (EERs): The facility does not submit an EER for NO_x, as required by Title V Permit No. 113004430-P01, Condition I.C.4.c(3) and Condition I.E.4.c(3); The facility has not received written approval from the WDNR to use the summary EER format in place of the full EER format, as required by NR 439.09(10); and The proper certification statement, required by 407.05(4)(j) and 439.03(10), is not signed by the Responsible Official, as required by Title V Permit No. 113004430-P01 Condition II.D.5. 	Submitted NO _x EERs for 2002. Submitted proper certification by the Responsible Official for previously submitted EERs. Requested written approval from the WDNR for use of the summary report EER format. Submitted NO _x EERs for each quarter since the permit was issued in January 2000.	Completed Completed Completed
Air – Construction/ Operating Permits	The facility failed to submit the 2003 Annual SO ₂ Compliance Plan by October 1, 2002, as required by Title V Permit No. 113004430-P01, Condition I.1.AA.b(1). The Plan was submitted on October 4, 2002. The facility failed to submit the Annual SO ₂ Emission Summary for 2001 by March 1, 2002, as required by Title V Permit No. 113004430-P01, Condition I.1.AA.b(2). The Summary was submitted on July 1, 2002.	Tickler file created as a reminder to meet submission deadlines for future Annual SO ₂ Emission Summaries and Annual SO ₂ Compliance Plans. Submitted proper certifications by the Responsible Official for the 2003 Annual SO ₂ Compliance Plan and the Annual SO ₂ Emission Summary for 2001.	Completed
	The 2002 and 2003 Annual SO ₂ Compliance Plans and the 2000 and 2001 Annual SO ₂ Emission Summaries did not contain the certification statement signed by the Responsible Official, as required by NR 407.05(4)(j) and 439.03(10) and Title V Permit No. 113004430-P01 Condition II.D.5.	Submitted proper certification by the Responsible Official for the 2000 Annual SO ₂ Emission Summary.	Completed

Topic	Conformance Exception	Corrective Action	Status
Air – Construction/ Operating Permits	 The facility has submitted numerous documents under the Title V Operating Permit that have not been properly certified by the Responsible Official, with the required certification language, pursuant to Title V Permit No. 113004430-P01, Condition II.D.5, and NR 407.05(4)(j) and 439.03(10). The following documents are examples: 2000 and 2001 Annual Emission Inventory Reports; 2002 RATA submittals on April 30, 2002 and June 6, 2002; RATA notifications submitted on March 26, September 6 and November 20, 2002; and All Quarterly Excess Emission Reports for 2001 and 2002. Note: Every document submitted under the Title V Permit shall be certified by the Responsible Official. 	 MGE submitted the proper Responsible Official certification for the following documents during the audit comment period: 2001 Annual Emission Inventory Report; January, April, and June 2002 RATA submittals; March, September, and November 2002 RATA notifications; and All previously submitted quarterly EERs. Resubmitted 2000 Annual Emission Inventory Report with complete certification statement. Staff responsible for environmental reporting were trained to have the proper signature and certification of a Responsible Official for all Title V documentation. 	Completed Completed Completed
Air – Construction/ Operating Permits	The facility did not review and update the Malfunction Prevention and Abatement Plan (MPAP), last updated in 1993, at least every 5 years, as required by Title V Permit No. 113004430-P01, Condition II.F and NR 439.11. The facility did not have an Emission Control Action Plan, as required by Title V Permit No. 113004430-P01, Condition II.G and NR 493.04.	The MPAP has been rewritten and the Emission Control Action Plan (ECAP) has been written.	Pending - waiting for completion of technical review and then it will be posted.
Air – Construction/ Operating Permits	Documentation was not available to demonstrate that the WDNR is notified of each opacity exceedance greater than 10% of the limit on the next business day following the onset of the event, in accordance with NR 439.03(4).	Staff responsible for environmental reporting were trained to complete Telephone Call Record each time DNR is notified of an opacity exceedance.	Completed

Topic	Conformance Exception	Corrective Action	Status
Air – QA/QC Manual	 The following discrepancies were noted regarding operation and maintenance schedules for the CEMS, established in the QA/QC Manual required by NR 439.09(8): Review of 2001 Weekly Boiler Analyzer Check Sheets indicated that three weekly checks were missed for boilers 7 and 9 between January 2001 and January 2002, and one weekly check was missed between June 2001 and October 2001; The Quarterly Analyzer Checklists completed for all Boilers in 3rd quarter and 4th quarter 2001 were conducted less than 60 days apart; the QA/QC Manual states that the Checklists shall be completed quarterly, at least 60 days apart; The Calibration Tracking Forms for cylinders ALM054982, ALM038350, ALM030349, and ALM056865 were missing either the final pressure, the removal date or both, and therefore it could not be determined if the cylinders were used beyond the expiration date and/or below 150 psi, the limit below which the QA/QC Manual states the cylinder must not be used; and The Calibration Tracking Form for cylinder ALM031935 stated that the final pressure of the cylinder when removed from service was less than 150 psi, below the limit of 150 psi set by the QA/QC Manual. 	 Eliminate weekly requirement to complete Weekly Boiler Analyzer Check Sheets. Checklists will be performed on an asneeded basis. CEM regulations do not require weekly checks. Allow Quarterly Analyzer Checklist to be completed less than 30 days apart. Staff responsible for CEM have been trained to complete Calibration Tracking Forms including the final pressure and removal date. 	Completed

Topic	Conformance Exception	Corrective Action	Status
Emergency Planning – EPCRA/ CERCLA	 The following deficiencies were noted regarding hazardous substances observed at the Blount Generating Station that were either not included in the Tier II reports submitted by MG&E for reporting year 2001, or improperly reported, as required by 40 CFR 370.25(a): Dielectric oils and lubricating oils (i.e., new and used), located throughout Blount Generating Station; Reporting of coal does not include location codes for wastewater treatment solids at the wastewater treatment plant; and Deionization media. 	MGE's dielectric oils are mineral oils which are not hazardous substances and thus do not fall under this regulation. The location code was added for wastewater treatment solids for MGE's 2002 Tier II forms. Information on storage of Deionization media was added for the 2002 Tier II forms (due March 1, 2003). MGE submitted a correction to the Tier II on Past Years forms for the past four years of submission (2001, 2000, 1999, and 1998) and paid fees associated with the storage.	Completed Completed Completed
Emergency Planning – SPCC/OPA/ FRP	 The SPCC Plan for the Blount Generating Station does not include all oil storage areas with potential for discharge by "spilling, leaking, pumping, pouring, emitting, emptying or dumping" as required by 40 CFR 112.7, including the following: Oil-filled equipment other than turbines, such as hydraulic reservoirs on elevators or cranes; and Oil loading and unloading operations. 	The SPCC Plan has been revised to include all areas (see Appendix).	Completed

Topic	Conformance Exception	Corrective Action	Status
Emergency Planning – SPCC/OPA/ FRP	 The Blount Generating Station has the following discrepancies regarding secondary containment or diversionary structures: The floor of the containment area for the 500,000 gallon fuel oil tank is comprised of gravel/earthen material. The SPCC Plan does not address the permeability of the gravel/earthen material (40 CFR 112.7(e)(2)); The oil transfer locations at Blount Generating Station are not secondarily contained (40 CFR 112.7(e)(3)); and The SPCC Plan does not discuss containment volume for those storage areas located within secondary containment (40 CFR 112.7(e)(2)). 	The revised SPCC plan addresses these issues (see Appendix).	Completed

Topic	Conformance Exception	Corrective Action	Status
Emergency Planning – SPCC/OPA/ FRP	 The Blount Generating Station SPCC Plan has the following discrepancies and/or deficiencies: The Plan does not follow the sequence outlined in 40 CFR 112, nor does it contain a cross-reference table; The Plan is not sealed by a professional engineer, as required by 40 CFR 112.3(d); The Plan does not discuss current management approval of the Plan and authority to commit resources to implement the Plan, as required by 40 CFR 112.7; The plan does not address the spill potential, the predicted rate of flow or quantity discharged from oil storage and transfer operations, as required by 40 CFR 112.7(b); The Plan does not discuss the method by which containment dikes are drained, as required by 40 CFR 112.7(e)(1); The Plan does not discuss fail-safe engineering, materials of construction compatibility or integrity testing for the aboveground storage tanks, as required by 40 CFR.7(e)(2); The Plan does not contain DOT procedures for oil loading and unloading operations, as required by 40 CFR 112.7(e)(4); The Plan does not discuss the security of drain valves or pump controls, as required by 40 CFR 112.7(e)(9); and The Plan does not include inspection procedures, and does not designate the current personnel responsible for oil spill prevention, as required by 40 CFR 112.7(e)(10). 	The revised SPCC plan addresses these issues (see Appendix).	Completed

Topic	Conformance Exception	Corrective Action	Status
Emergency Planning – SPCC/OPA/ FRP	 The Blount Generating Station has the following deficiencies in the implementation of the SPCC Plan: The facility does not have signage or a means of preventing bulk tankers from departing prior to disconnection, as required by 40 CFR 112.7(e)(4); and Inspections are either not conducted or not properly documented, signed and incorporated into the SPCC Plan, as required by 40 CFR 112.7(e)(8). 	The revised SPCC plan addresses these issues (see Appendix).	Completed
Waste – Hazardous	The Blount Generating Station operated as a small quantity generator of hazardous waste during 23 of 24 months of review. The following deficiencies and discrepancies were noted regarding the facility's hazardous waste management program as required by NR 610.08 (1)(w)and (2)(a):	Labels created for general emergency response will be modified to include specific environmental information and redistributed. A walk-through will be conducted to ensure the labels are placed at each phone.	Pending
	• Emergency procedures (name and telephone number of the emergency coordinator, emergency numbers, emergency coordinator and location of fire extinguishers) were not posted near the telephone in the Blount Generating Station; and	Maps will be created to identify fire extinguishers within the plant. These maps will be placed by all phones within the plant. Office areas will be provided a label that identifies the nearest fire extinguisher(s).	Pending
	Weekly container inspections were not documented for the Blount Generating Station.	Weekly container inspections are now being documented for all applicable areas.	Completed
Waste – Hazardous	The facility has not characterized or documented characterization of the following solid wastes as hazardous, non-hazardous, universal, special or exempt, as required by NR 610.05:		
	• Spent paint filters generated in the Blount Maintenance Shop have been characterized as non-hazardous, but the characterization has not been documented; and	Paint filter characterization has been documented and included in a waste characterization file at Corporate Records.	Completed
	• Floor sweepings/grinding debris containing residuals from welding and maintenance operations throughout the facility have not been characterized.	A sample of floor sweepings has been collected. The sample was analyzed for RCRA metals. The sweepings were found to be nonhazardous.	Completed

Conformance Exception	Corrective Action	Status
The Blount Generating Station operated as a large quantity generator of hazardous waste during April 2001. The following deficiencies and discrepancies were noted regarding the facility's hazardous waste training, required by NR 630.16(4):	MGE contacted the DNR to help us resolve how to meet the auditors' exception. The DNR plans to include this in the Blount walk-through conducted by the DNR that is scheduled for early April 2003.	Pending
position at the facility related to hazardous waste management and the name of the employee filling each job; and		
 A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed above. 		
The following deficiencies / discrepancies were noted regarding on-site waste management of mercury-containing spent lamps by the facility:		
• Storage containers located in the Blount Generating Station were not labeled with the words "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used	Labels have been changed to reflect the proper language. A sign has been placed on the storage cabinet with the proper language.	Completed
 Mercury lamps or containers or packages in which such lamps were contained were not labeled or clearly marked with the accumulation start date as required by 40 CFR 273.15(c). The facility was unable to demonstrate the length of time that the universal waste had been accumulated; and 	The dates on current boxes have been adjusted. The label has been corrected to reflect the accumulation start date so future boxes will be correct. A sign has been placed on the storage cabinet instructing people to use the accumulation start date.	Completed
• Several containers of used lamps were not maintained closed as required by 40 CFR 273.13 (d). Note: Spent lamps have not been formally adopted into the state universal waste program. However, WNDR guidance issued in 1993 allows for management of spent lamps in a less burdensome manner provided the lamps are sent off-site for recycling. The guidelines are similar to federal	Containers have been purchased that have permanent lids to ensure that containers are closed.	Completed
	 The Blount Generating Station operated as a large quantity generator of hazardous waste during April 2001. The following deficiencies and discrepancies were noted regarding the facility's hazardous waste training, required by NR 630.16(4): Training records do not include the job title for each position at the facility related to hazardous waste management and the name of the employee filling each job; and A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed above. The following deficiencies / discrepancies were noted regarding on-site waste management of mercurycontaining spent lamps by the facility: Storage containers located in the Blount Generating Station were not labeled with the words "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)" as required by 40 CFR 273.14 (e); Mercury lamps or containers or packages in which such lamps were contained were not labeled or clearly marked with the accumulation start date as required by 40 CFR 273.15(c). The facility was unable to demonstrate the length of time that the universal waste had been accumulated; and Several containers of used lamps were not maintained closed as required by 40 CFR 273.13 (d). Note: Spent lamps have not been formally adopted into the state universal waste program. However, WNDR guidance issued in 1993 allows for management of spent lamps in a less burdensome manner provided the lamps are sent off- 	The Blount Generating Station operated as a large quantity generator of hazardous waste during April 2001. The following deficiencies and discrepancies were noted regarding the facility's hazardous waste training, required by NR 630.16(4): Training records do not include the job title for each position at the facility related to hazardous waste management and the name of the employee filling each job; and A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed above. The following deficiencies / discrepancies were noted regarding on-site waste management of mercury-containing spent lamps by the facility: Storage containers located in the Blount Generating Station were not labeled with the words "Universal Waste—Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)" as required by 40 CFR 273.14 (e); Mercury lamps or containers or packages in which such lamps were contained were not labeled or clearly marked with the accumulation start date as required by 40 CFR 273.15 (e). The facility was unable to demonstrate the length of time that the universal waste had been accumulated; and Several containers of used lamps were not maintained closed as required by 40 CFR 273.13 (d). Note: Spent lamps have not been formally adopted into the state universal waste program. However, WNDR guidance issued in 1993 allows for management of spent lamps in a less burdensome manner provided the lamps are sent off-site for recycling. The guidelines are similar to federal

Topic	Conformance Exception	Corrective Action	Status
Water – SDWA	OBSERVATION Two drinking water fountains at the Blount Generating Station were observed to have point-of-use treatment devices, potentially qualifying the facility as a Public Water Supplier (i.e., providing treated water to more than 25 persons). Based upon phone discussions with the WDNR, point-of-use treatment devices are only regulated by the WDNR when utilized to remove "contaminants" from water and not when utilized for "aesthetic purposes" in conjunction with water supplied by an approved Public Water System. It is the auditors' understanding that the point-of-use filters are for aesthetic purposes.	WDNR has concluded these filters do not trigger Safe Drinking Water Act requirements.	NA
Water – WPDES	 The following deficiencies were noted regarding the Blount Generating Station's Discharge Monitoring Reports and backup documentation: Laboratory reports from December 2000 until June 8, 2001 did not include the name of the person conducting the analysis, as required in the WPDES permit; Two chain of custody forms (June 2002 and November 2002) did not include the name of the person obtaining samples as required in the WPDES permit; Five chain of custody forms were missing signatures, dates, and/or times in the sample relinquishment space. These forms include April 25, 2001, May 1, 2001, May 30, 2001, October 17, 2001 and July 2002; and Back-up data for the first two weeks of November 2001 (laboratory reports and chain of custody forms) are missing from the files. The permit requires that these records be maintained for a minimum of 3 years. 	Procedures have been written to monitor all reports to make certain all required information is in the report.	Completed

Topic	Conformance Exception	Corrective Action	Status
Water – WPDES	The facility currently flushes accumulated debris from the condenser water intake screen back into Lake Monona rather than removing the material from the screen and disposing of the material in a manner that prevents the material from entering the Lake as required by the WPDES Permit WI-0001961-6 Page 2, Condition (2).	An engineer solution is being developed.	Pending
Water – WPDES	The delegation of signature authority, required by WPDES Permit WI-0001961-6; page 5; Reporting and Monitoring Requirements (1)(c), could not be produced during the audit, and is no longer valid as it predates Waldron as vice-president.	A new delegation letter was sent to the WDNR on February 14, 2003.	Completed
Water – WPDES	The wastewater sample collection refrigerators at the Blount Generating Station for Outfalls 001 and 008 were observed to have temperatures of 5 and 7 degrees C, respectively. This is above the maximum temperature of 4 degrees C required for Total Suspended Solids sample storage by 40 CFR 136.	A monitoring log has been implemented and new laboratory grade refrigerators with automatic temperature controls have been installed.	Completed
Cooperative Agreement	 MGE committed to purchase biodiesel for its Central Service Center pursuant to Section IX.A.3 of the Cooperative Agreement unless it was not reasonably available or it was uneconomical. During October and November 2002, the auditor was informed by MGE personnel that biodiesel fuel was not reasonably available from the fuel supplier used by MGE at that time. Fuel purchases in December 2002 consisted of either pre-blended No. 2 Diesel / biodiesel (80:20 ratios) or of No. 1 and No. 2 diesel and biodiesel blended at the diesel tank located at the Central Service Center (80:20 ratio No. 1/2 to biodiesel). 	The auditor was informed by MGE that it has been an industry practice that 100% biodiesel fuel not be utilized in diesel engines. It was MGE's understanding when entering into the Cooperative Agreement that fuel blends such as 20% biodiesel and 80% No. 1 and/or No. 2 fuel were acceptable. MGE will clarify this understanding with the WDNR.	Completed

ENVIRONMENTAL COOPERATIVE AGREEMENT (ECA) LANGUAGE

ENVIRONMENTAL COOPERATIVE AGREEMENT (ECA) LANGUAGE

ECA Language - Action Item 1

- B. Solid Waste Management.
- 1. This agreement establishes a streamlined process by which WDNR shall grant or deny approval to MGE to burn non-industrial solid wastes as PDF at BGS. This process applies only to new non-industrial solid waste materials not previously approved by WDNR. This agreement does not change the existing process for industrial waste. The streamlined process is as follows:
 - a. MGE shall provide the waste management and air management representatives of the WDNR multi-discipline regulatory and compliance assistance team for BGS with a written request for approval to burn any non-industrial waste not previously approved.
 - b. Each request shall include the following required information:
 - Description of waste;
 - Uniformity of waste including potential contaminants;
 - Source(s) of waste;
 - Describe, if any, changes in ash disposal required by burning the solid waste;
 - Bulk chemical analysis;
 - Lab analysis for heat input that demonstrates that the burning of this product will not cause an exceedance of the heat input limitation found in Section I.G.2.a.(2) of BGS's operating permit;
 - Emission estimates that demonstrate the burning of this product will not cause an exceedance of the National Ambient Air Quality Standards; and,
 - Emission estimates that demonstrate the burning of this product will not cause an exceedance of any regulatory threshold under ch. NR 445, Wis. Adm. Code.

WDNR will determine on a case-by-case basis whether stack testing is required, the pollutants to be tested, and the time frame for any such testing. The format or content requirements for these requests may change at any time upon mutual consent of the parties without requiring amendment of this agreement.

ECA Language - Action Item 2

- C. Wastewater Discharge Elimination.
- 1. WDNR will revoke coverage for BGS under the Tier 2 general storm water permit and confer coverage under the Tier 3 general storm water permit (#WI-S049158-2) by October 6, 2002.

MGE will continue implementing the existing SWPPP, but strict adherence to the SWPPP is not a compliance requirement under this agreement or under the Tier 3 discharge permit.

ECA Language – Action Item 3

VII. INTERESTED PERSONS GROUP

MGE commits to work with community and WDNR representatives assigned to the facility. MGE will solicit public comments concerning MGE's participation in this agreement during the CEAG meetings or other meetings with community groups or employees. A representative from MGE or a person hired by MGE will take notes during CEAG meetings. Those notes will be compiled into minutes that summarize the information discussed at CEAG meetings. Minutes will be organized by topic and will be content oriented. Minutes will not be an exact recounting of conversations. MGE employees will review the minutes internally before providing them in draft form to CEAG members and WDNR representatives. CEAG members will have an opportunity to approve or suggest corrections to the minutes at the next CEAG meeting. Corrections based on suggestions will be e-mailed to CEAG members for approval. Once approved by CEAG, a copy of the minutes will be filed in MGE's Corporate Records and a copy of the minutes will be posted on MGE's web site for public review. Individual members of the CEAG will be solicited and encouraged to provide suggestions into MGE's efforts regarding its environmental performance. MGE representatives will consider and respond to issues raised by the group. These responses will be provided in writing, and/or at further group meetings, and/or through discussions with a member(s). MGE will make reports, assessments, meeting minutes, and responses to public comment publicly available at MGE offices. Meeting minutes will also be posted on MGE's web site.

ECA Language – Action Item 4

VIII. COMMITMENT TO ENVIRONMENTAL MANAGEMENT SYSTEM

The Company commits to improving the existing Environmental Management System (EMS) for BGS to make it comparable to the requirements of ISO 14001 by September 26, 2004. Elements of the EMS that directly support implementation of this agreement shall be implemented as soon as practicable given resource constraints. Readily available data on this EMS shall be reported by MGE to the National Database on Environmental Management Systems developed by The Environmental Law Institute and the University of North Carolina.

ECA Language - Action Item 5

- A. Air Pollution Control.
- 1. MGE shall continue its BGS No. 8 boiler combustion improvement study toward achieving the following objectives:
 - Further improve stack opacity;
 - Maintain NO_x levels < 0.5 lb/mmBTU;
 - Increase use of alternate fuels to at least 25% by heat content;
 - Reduce fly ash carbon content to below 10%; and,
 - Maximize boiler efficiency as allowed by the above constraints.

MGE has discretion as to whether it will implement any recommendations that may be set forth in the study. The incremental cost-effectiveness of a recommendation is one of many factors that MGE may consider in deciding whether to implement a recommendation.

ECA Language – Action Item 6

2. In addition to the combustion improvement study, MGE will install new pollution control devices by the end of December 2003 that enhance the performance of the electrostatic precipitator on No. 8 boiler. These devices are called pulsers. The devices are designed to impose a high-frequency pulse on top of the existing DC voltage to enhance the collection efficiency on the electrostatic precipitator. MGE already has these devices on its No. 9 boiler precipitator.

ECA Language - Action Item 7

3. MGE will purchase biodiesel for all diesel fuels supplied to the MGE refueling station at its Central Service Center at 120 South Baldwin Street in Madison, Wisconsin. This purchase is based upon the price difference between conventional diesel fuel and biodiesel being \$0.16 per gallon. If this price differential increases significantly or biodiesel becomes reasonably unavailable, this program may be suspended.

ECA Language - Action Item 8

4. MGE shall quantify on an ongoing basis any significant voluntary emissions reductions achieved at BGS. MGE shall report such reductions in its periodic performance evaluations or register the reductions in WDNR's Voluntary Emissions Reduction Registry when procedures for the Registry are established.

ECA Language - Action Item 9

5. MGE shall submit a plan within one year after signing this agreement for conducting voluntary research on fuels, operating techniques, and/or control equipment intended to reduce emissions from backup generators. MGE will undertake this voluntary research if WDNR determines, following normal procedures, that the plan is eligible for a research and testing exemption under s. NR 406.04(1)(i), Wis. Adm. Code. MGE will include the results of any such research in an environmental performance evaluation and submit the performance evaluation results in a report meeting the requirements of s. 299.80(12), Wis. Stats. In the unlikely event that research inadvertently leads to unexpected temporary emission levels that exceed regulatory or permit limits, such research will be eligible for deferred civil enforcement in accordance with s. 299.80(14), Wis. Stats.

ECA Language - Action Item 10

6. Within 9 months of signing this agreement, MGE shall submit an analysis to WDNR and the CEAG evaluating reasonably available options for further reducing air pollution from BGS. The analysis shall focus on reducing those criteria pollutants that have the greatest potential

for localized impacts utilizing multi-pollutant control strategies and/or mitigation measures. At a minimum, the analysis shall:

- Evaluate strategies demonstrated in practice on full-scale operations within the utility industry including the increased use of alternative fuels;
- Quantify the level of emission reductions that could be reasonably expected by utilizing each identified strategy at BGS;
- Evaluate any collateral environmental and safety impacts of each identified strategy;
- Compare the control effectiveness of each strategy to existing emission limitations for each pollutant;
- Evaluate the effect on customers from utilizing each strategy; and
- Evaluate the incremental cost-effectiveness of each option.

This analysis will create the opportunity for MGE to discuss with WDNR, CEAG, and others potential emission reduction goals for BGS. The goals shall be primarily based upon integrated, multi-pollutant control strategies and may be expressed as total annual emission reductions and/or emission reductions per defined unit (e.g., lbs/mmBTU, etc.) The analysis and list of potential goals shall be made available for further input, discussion, and refinement by the Public Service Commission, as appropriate.

ECA Language – Action Item 11

- B. Solid Waste Management.
- 1. MGE shall increase the amount of waste material that can be reasonably diverted from landfills for use as a fuel source at BGS, provided that combustion of these waste materials meets all air pollution control standards and is environmentally equivalent to or preferable to coal combustion.

ECA Language – Action Item 12

a. Within 2 months of signing this agreement, MGE and WDNR shall each designate a contact person for issues related to the beneficial reuse of ash;

ECA Language – Action Item 13

b. Within 6 months of signing this agreement, MGE shall provide the WDNR contact with a completed initial certification form, including test results, as described in ch. NR 538, Wis. Adm. Code, for the ash produced at BGS; and,

ECA Language – Action Item 14

c. Within 12 months of signing this agreement, MGE shall provide the WDNR contact with a report identifying and evaluating the feasibility of potential beneficial uses for BGS ash. As part of this report, MGE shall assess how increasing the proportion of waste materials in its fuel mix might affect the potential for beneficial reuse of ash. The report shall also address the possibility of resuming the burning of ash from the University of Wisconsin's Charter Street generating station in the boilers at BGS.

ECA Language – Action Item 15

3. MGE shall continue its voluntary mercury thermostat recycling program and allow select non-customers (e.g., building contractors) as well as customers to drop off mercury-containing thermostats and other devices for recycling. As part of this program, MGE shall alert the selected non-customers in its service area to the availability of this program within 6 months of signing this agreement.

ECA Language - Action Item 16

- 4. MGE shall submit with its Baseline Performance Evaluation a detailed plan for managing mercury-containing equipment throughout the Company, with highest priority assigned to BGS. The plan shall include:
 - a. A process and schedule for inventorying equipment known or suspected to contain mercury;
 - b. A plan and schedule for systematically replacing mercury-containing equipment with mercury-free alternatives where justified considering economics, risk, and availability of alternatives; and,
 - c. A plan for recycling any mercury collected through these efforts.

ECA Language - Action Item 17

5. MGE shall submit with its Baseline Performance Evaluation a detailed plan for systematically inventorying and replacing PCB transformers throughout the Company and responsibly managing any wastes generated through these efforts.

ECA Language – Action Item 18

6. Within 12 months of signing this agreement, MGE shall invite a WDNR hazardous waste specialist and a representative of the University of Wisconsin's Center for Environment and Energy to tour BGS and collaborate to identify other potential hazardous waste minimization or prevention opportunities.

ECA Language - Action Item 19

- C. Wastewater Discharge Elimination.
- 1. MGE shall propose a voluntary storm water pollution prevention demonstration project in consultation and cooperation with WDNR and other appropriate interested parties. The purpose of the demonstration project will be to evaluate the performance of different storm water treatment practices for the removal of pollutants from storm water runoff. The extent of monitoring of the demonstration project will be dependent on the level of cost sharing between MGE, WDNR, and any other participants. MGE shall submit the proposal with its Baseline Performance Evaluation.

ECA Language – Action Item 20

2. MGE shall conduct or commission a study on the feasibility of recovering heat from non-contact cooling water for local use and to reduce thermal discharge to Lake Monona. This study may, at MGE's discretion, be combined with the cogeneration study required under D.1. below, but the evaluation of heat recovery options should not be limited to cogeneration. MGE has discretion as to whether it will implement any recommendations that may be set forth in the study. The incremental cost-effectiveness of a recommendation is one of many factors that MGE may consider in deciding whether to implement a recommendation.

D. Other.

1. MGE shall conduct or commission a study on the feasibility, costs and benefits, and potential regulatory and economic implications of a combined heat and power (cogeneration) project at BGS. WDNR shall contribute time and expertise at MGE's request to assist in the analysis of environmental regulatory issues. The Wisconsin Department of Administration (DOA) will also be available for consultation upon MGE's request, based on DOA's overall knowledge of energy issues, its years of experience with cogeneration, and its responsibility for managing many of the buildings near BGS. MGE has discretion as to whether it will implement any recommendations that may be set forth in the study. The incremental cost-effectiveness of a recommendation is one of many factors that MGE may consider in deciding whether to implement a recommendation. [Note that DOA is not a signatory to this agreement and cannot be bound by this agreement, but has made a verbal commitment to consultation.]

ECA Language - Action Item 21

2. MGE shall work with the CEAG to establish a procedure for identifying and responding to noise concerns in an appropriate and timely manner.

ECA Language - Action Item 22

- A. Air Pollution Control.
- 5. This agreement supersedes the compliance demonstration requirements in Condition I.G.3.b.(2) of the BGS air pollution control operation permit (#113004430-P01). MGE shall demonstrate compliance with each of the pollution limits in Section X.A. using the following methodology:
 - a. Within 15 days of the end of each month, MGE shall estimate actual emissions from PDF combustion for the previous month and sum the estimated emissions for the preceding 6-and 12-month periods.
 - b. MGE shall estimate monthly emissions for arsenic, beryllium, cadmium, and nickel using the following equation and data sources or another method approved by WDNR:

Emissions = [AMT] * [CONC] * [ASH] * [1-CE] * [2000 pounds per ton] where...

AMT = tons of PDF burned:

CONC = average concentration of arsenic, beryllium, cadmium, and nickel in the PDF burned, based on the same sampling and analysis procedures already required for nickel under Condition I.G.3.c.(4) of the operation permit. If any sampled concentration is below the detection limit, MGE shall assume the concentration is equal to the detection limit; **ASH** = portion of the ash created from PDF combustion that is emitted as fly ash, which shall be assumed to be 80% (i.e., 0.80) unless otherwise demonstrated by MGE or WDNR; and,

CE = combined particulate matter control efficiency of the cyclone and electrostatic precipitator, which shall be assumed equal to the efficiency achieved in the most recent stack test.

c. Within 15 days of estimating monthly emissions from PDF, MGE shall notify the WDNR air compliance inspector for BGS if emissions for the preceding 6-month period exceed 50% of any of the pollution limits in Section X.A., and describe any measures that will be taken to ensure 12-month totals will not exceed the limits.

ECA Language - Action Item 23

- A. Wastewater Discharge Elimination.
- 1. This agreement supersedes the sample frequency for oil and grease monitoring requirements in the BGS wastewater permit (WPDES #WI-0001961-6). The oil and grease sample frequency shall immediately be reduced from weekly to monthly. In the event that any test results indicate an exceedance of the permit limit for oil and grease, the sample frequency shall immediately revert to weekly until four consecutive weekly tests show that the oil and grease permit limits are met, at which time monthly sampling may resume.

ECA Language - Action Item 24

- D. Other.
- 1. WDNR shall assign within 30 days after signing of this agreement a special multi-discipline regulatory and compliance assistance team to BGS that is knowledgeable about BGS operations and the utility industry. This team shall have an intimate knowledge of BGS operations and a working knowledge of the utility industry and utility operations that can affect the environment. The team shall also have working knowledge of non-environmental regulatory matters that affect the utility industry and may impact environmental commitments in this agreement. MGE shall assist WDNR team members in gaining any site-specific or company-specific understanding that is required for this role. The WDNR team shall provide technical assistance to MGE in pollution prevention, waste minimization, and general environmental compliance best practices. WDNR team members and MGE shall routinely share relevant information via formal and informal communications. The goal is to foster ongoing collaboration between WDNR and MGE.

ECA Language – Action Item 25

2. WDNR and MGE shall work cooperatively to develop integrated, cross-media (air, water, waste) electronic reporting capability as soon as practicable.

ECA Language - Action Item 26

XIII. BASELINE AND PERIODIC PERFORMANCE EVALUATIONS.

Within 180 days of signing this agreement, the Company shall submit to WDNR and the CEAG a Baseline Performance Evaluation for BGS. The Baseline Performance Evaluation shall include the mandatory information described in Section II.G. of this agreement as well as the plans and proposal required under Sections IX.B.4., IX.B.5., and IX.C.1. of this agreement.

ECA Language – Action Item 27

XIII. BASELINE AND PERIODIC PERFORMANCE EVALUATIONS

MGE shall provide a draft of each annual assessment to WDNR and the CEAG for review and comment prior to final publication. MGE shall also solicit suggestions from WDNR and the CEAG on how to improve performance under the agreement. These comments and suggestions will be summarized and MGE will respond to them in writing or through further discussions with groups or individuals.

ECA Language - Action Item 28

XIII. BASELINE AND PERIODIC PERFORMANCE EVALUATIONS

MGE shall make copies of all baseline and periodic performance evaluations available for public inspection at MGE offices, the Madison Public Library, and on the Internet.

APPROVAL PROCEDURES FOR NEW SOURCES OF PDF

Approval Procedures for New Sources of PDF

- 1. **Identify Source.** "Source" means all the entities that handle this material from manufacture to delivery to Blount. Information shall include business entity name, address, and phone number. Madison General Fuels (MGF) provides info, and MGE PDF Engineer maintains list. The information should also:
 - Help determine whether material is preconsumer waste.
 - Help determine whether material is industrial or nonindustrial waste.
 - Provide: a) a description of the waste (e.g., "polycoated wax paper with red dye"), (b) provide a description of how the material is processed, (c) describe any potential contaminants, and (d) describe the current disposal method.
 - Be delivered to the PDF group before going to the next step (PDF group includes PDF Engineer, Blount Supervisor of Environmental Compliance, Air Quality Specialist, Blount Supervisor of Laboratory and Water Systems, Blount Director of Operations).
- 2. Sample & Analyze. A sample amount (one-quart ziplock bag full) of the (respective) material(s) shall be provided by MGF to MGE for lab analysis before any quantities are delivered to MGE premises. A separate sample of each material source must be provided to MGE. In other words, if there are four sources of material generated from a given supplier, there needs to be four separate samples provided to MGE. Each of these sources should be identified in detail in step one above. MGE will then prepare and send in the sample(s) to an outside laboratory as either one composite or several separate samples. Sample preparation shall be determined by Blount Supervisor of Laboratory and Water Systems. Blount laboratory staff shall coordinate this analysis and shall test for the constituent elements as defined by the Air Quality Specialist. The Air Quality Specialist will select the elements based on the pollutants listed in NR 445 and/or as defined by MGE's Blount air permit.
 - MGF shall provide samples of each type of material coming from the source.
 - Blount Laboratory may conduct any initial material testing or screening for material such as btu content, etc., at their discretion.
 - Blount Laboratory shall prepare a composite sample from these or sample each individually. If a composite is required, MGF shall estimate and provide the quantity or percentage of each material we should expect to receive. For example, 70 percent polycoated wax paper and 30 percent wax-coated paper.
 - Blount Laboratory shall send out the sample(s) to an outside laboratory for final testing.
- 3. **Review PDF Description and Lab Results.** Based on the review of information from steps 1 and 2, the Blount Air Quality Specialist and Blount Supervisor of Environmental Compliance will determine if:
 - The material(s) meet the DNR's definition of preconsumer waste.
 - The material(s) meet the DNR's definition of industrial process waste.

• The lab results demonstrate the chemical concentrations will allow us to remain in compliance with MGE's Blount air permit and NR 445 requirements.

It should take two to four weeks for the analysis and a decision from the Blount Air Quality Specialist and Blount Supervisor of Environmental Compliance.

- 4. **Test Burn.** MGE and MGF will conduct a trial burn of the material to examine how it is accepted by MGF's material handling equipment and by MGE's boilers if:
 - The material meets the DNR's definition of preconsumer waste.
 - The material meets the DNR's definition of industrial process waste.
 - The lab results demonstrate the chemical concentrations will allow us to remain in compliance with MGE's Blount air permit and NR 445 requirements.

The amount of material necessary to perform the trial burn shall not exceed 100 tons. Blount Directors of Engineering and Operations determine if new PDF is operationally acceptable.

- 5. **DNR Review, if needed.** The Blount Air Quality Specialist and Blount Supervisor of Environmental Compliance shall request approval to burn the nonindustrial solid waste as PDF only if:
 - The material meets the DNR's definition of preconsumer waste.
 - The lab results demonstrate the chemical concentrations will allow us to remain in compliance with MGE's Blount air permit and NR 445 requirements.

A written request will be submitted to the waste management and air management representatives of the DNR multidiscipline regulatory and Blount's compliance assistance team. The request will comply with the requirements in Section VI.B of the Environmental Cooperative Agreement. If the DNR does not object or request additional information from MGE within 30 days of receiving the request, MGE is automatically granted approval to burn the waste at Blount Station. After receiving approval or after the 30 days, MGE will proceed with step 4.

- 6. **Approve or Reject.** If the trial burn is successful, PDF Engineer will provide formal notice to MGF, allowing MGF to make contractual arrangements with the material supplier, if necessary. If the trial burn is unsuccessful, MGF may request additional trial burns; however, MGE may elect to reject the material and further trials at any time. No new materials will be brought on-site without MGE approval. Material brought onto MGE premises not authorized for trial burning by MGE shall be removed and disposed of at MGF's expense. Blount Operations Director will ask PDF Engineer to add new PDF to approved list; PDF Engineer informs MGF.
- 7. **Maintain PDF List.** PDF Engineer and MGE shall maintain a current list of all approved PDF sources on-site at all times. New list is e-mailed to Group. Kathy Cullen is also e-mailed so she can compare updated list to MGF receipts.

8. **Follow-up Sampling.** On a quarterly basis, MGE Lab will take a composite sample of PDF made up of weekly composite samples during the quarter. This sample will be sent in and analyzed for the elements as defined in NR 445 and as defined by our air permit. On a random basis, MGE will also perform grab sample analysis on new PDF materials and send them in for analysis for the elements as defined in NR 445 and as defined by our air permit. All results will be reviewed to determine if the material makeup has changed over time. If results show a material source has changed and no longer meets MGEs requirements, it will be discontinued immediately. (Blount Laboratory tests material.)

STORM WATER POLLUTION PREVENTION PLAN (SW PPP)

Madison Gas and Electric Company

Storm Water Pollution Prevention Plan

Revised by JJM

January 23, 2003

Section 1 INTRODUCTION

This Storm water Pollution Prevention Plan (SWPPP) covers MGE's Blount Generating Station. The SWPPP complies with the Wisconsin Administrative Code, Chapter NR216, Storm Water Discharge Permits regulation. The plan also complies with the Tier 3 WPDES General Permit No. WI-S049158-2¹ issued to Blount Generating Station on October 4, 2002 which has an effective start date of May 30, 1995². This plan identifies but excludes from coverage Storm water discharging to outfalls controlled under existing WPDES Permit No. WI-0001961-6

1.1 Plan Contents

The Plan contents are based on Plan requirements identified in NR 216.27 and include:

Identification of employee responsible to carry out the plan.

Summary of major activities conducted at the facility.

Drainage base map of the facility.

Results of non-storm water discharge visual observations.

Identification of potential sources of Storm water contamination.

Identification of non-storm water discharges to the storm sewer system including which are covered by an existing WPDES permit.

List of Best Management Practices (BMPs) to prevent and minimize Storm water contamination.

Storm water treatment practices, if necessary.

Checklist of inspection requirements.

Implementation schedule, and administration of the SWPPP.

This SWPPP will be updated whenever any activity results in significant increases in the

As part of the cooperative environmental agreement between the DNR and MGE, the DNR revoked coverage under the Tier 2 industrial storm water discharge permit No. WI-S067857-1 for the Blount Genterating Station and is conferring coverage under the Tier 3 industrial storm water discharge permit No. WI-S049158-2

²MGEs start date for coverage under the Tier 3 permit remains the same as the previous coverage under the Tier 2 permit, May 30, 1995.

exposure of pollutants to Storm water, or when inspections reveal that the provisions of the SWPPP are ineffective, or if the DNR finds the SWPPP to be ineffective.

Section 2 SWPPP IMPLEMENTATION COORDINATOR

2.1 Identification of Coordinator

The Supervisor-Laboratory and Water Systems, Blount Generating Station, is responsible for implementing the SWPPP with assistance as needed from other company staff, including Safety and Environmental Affairs.

2.2 <u>Duties and Responsibilities of Coordinator</u>

The SWPPP Coordinator's responsibilities include:

Developing, implementing, and maintaining the SWPPP.

Implementing the BMPs identified in the SWPPP.

Conducting and maintaining records on the periodic inspections that are part of the SWPPP.

Identifying Storm water contamination problems and /or any BMP deficiencies, making corrective recommendations to management, and updating the SWPPP accordingly.

Serving as liaison to the Department of Natural Resources' (DNR) Storm water program staff.

Section 3 MAJOR ACTIVITIES CONDUCTED AT THE FACILITY

3.1 Activities:

MGE's Blount Generating Station and ancillary facilities on the station property generates electricity. Operations involving storm water discharges include:

Fuels handling and storage.

- 1. Coal is unloaded and stored in the coal yard until it is used. The coal yard is bordered by a wall to isolate it from surface runoff. Any surface runoff within the coal yard is conveyed to the ash system discharge water facility covered under WPDES permit No. WI-0001961-6.
- 2. Fuel oil is stored in an above ground tank in the coal yard. The tank has a secondary containment structure around it.
- 3. Alternate fuels are unloaded, stored, and processed in the alternate fuels receiving station.

Materials storage.

1. Two above ground tanks are located in the west corner of the coal yard. One holds sulfuric acid and the other holds sodium hydroxide. Each tank is surrounded by a secondary containment structure.

STORM WATER SAMPLING OR ANALYSIS DATA

MGE has not and has not been required to conduct storm water sampling and analysis. MGE has indirectly sampled and analyzed storm water because storm water is part of the total discharge from outfall 001, 002, 003, and 008, permitted under WPDES Permit No. WI-0001961-6. The data has been submitted to the DNR in the form of permit re-applications and monthly discharge monitoring reports.

As a Tier 3 Storm water Discharge General Permit holder, MGE is not required to perform sampling and analysis of storm water discharges. In lieu of such testing, periodic visual inspections of storm water are required in the general permit and are provided for under this Plan (see **Section 8.2**).

See **Section 6.1** for a list of materials stored on site which have the potential to contaminate storm water.

Section 5 DRAINAGE MAP

5.1 **Property Description**

The Blount Generating Station property lines are shown on the "Blount Generating Station Drainage Map" in **Appendix A** of this plan. The facility, located in the city of Madison at 717 East Main Street, is bounded on the north by East Main Street, on the east by Livingston Street, on the west by Blount Street, and on the south by the property line adjacent to the south side of the Blount Generating Station coal storage pile.

5.2 <u>Location of Outfalls</u>

The Blount Generating Station has six storm water outfalls. Storm water outfalls number four, five, six, and seven are covered under WPDES Permit No. WI-0001961-6. The location of each outfall is represented on the "Blount Generating Station Drainage Map" in **Appendix A**.

5.3 <u>Drainage Area Boundary for each Outfall</u>

The outfalls described above have their respective drainage areas delineated on the "Blount Generating Station Drainage Map" in **Appendix A**.

5.4 Surface Area (Acres) Draining to Each Outfall (and Percent Impervious)

The surface area draining to each outfall are summarized as follows.

Storm Water Outfall	Surface	Area(Acres)
³ 1	Asphalt	0.05
2	Asphalt	0.10
3	Asphalt	0.03
4 (WPDES 003)	Building Roof	0.55
5 (WPDES 002)	Building Roof	0.72
6 (WPDES 001)	Building Roof	0.43
7 (WPDES 008)	Compacted Gravel, Pavement and Coal	3.60
	Total Area	5.43
	Total Impervious Area	1.83

³ Outfall 001 was re-routed through outfall 002.

5.5 Existing Structural Storm Water Controls

There are existing secondary containment structures around the Blount Station fuel oil storage tanks, the sulfuric acid tank, the caustic soda tank, and substation electrical equipment. The coal storage area, the switchyard, and other gravel areas are also surrounded by containment berms to prevent surface runoff from entering the storm sewer. The berms and secondary containment structures also serve to control significant soil erosion. These are shown on the "Facility Secondary Containment/Berm Structure Map" located in **Appendix A**.

5.6 Receiving Water body

The storm water discharge outfalls referred to in **Section 5.2** and as identified on the "Blount Generating Station Drainage Map" in **Appendix A** enter the city of Madison storm sewers on the streets adjacent to the Blount Generating Station property. These storm sewers in turn discharge into Lake Monona.

Section 6

POTENTIAL SOURCE AREAS OF STORM WATER CONTAMINATION, SIGNIFICANT POLLUTING MATERIALS, AND BEST MANAGEMENT PRACTICES

6.1 Source Areas and Materials Having the Potential to Contaminate Storm Water

The following is a list of source areas and materials having the potential to contaminate storm water. Those areas covered under WPDES Permit No. WI-0001961-6 are noted as such. These materials and the proposed BMPs are shown on the "Facility Source Areas and Associated BMPs Map" located in **Appendix A**.

Coal storage yard, (Covered under WPDES Permit No. WI-0001961-6)

Surface runoff from coal pile Vehicles used in the coal yard Fuel oil tank Sulfuric acid storage tank Sodium hydroxide storage tank

Alternate Fuels Receiving Station Area
Oil leaks from delivery trucks

Switchyard

Oil containing electrical equipment Residual from former MGP site

Front Gate Area

Trash

Oil leaks from delivery trucks and/or Blount Station vehicles

#3-Turbine loading dock

Metals and garbage dumpster

6.2 Significant Pollutants Likely to be Present in Storm Water

The only potentially significant pollutants are volatile organic compounds (VOCs) that may be present in storm water that collects in the switchyard conduit access manholes due to their proximity to the former MGP site. These manholes are pumped out manually and will not be pumped out to the storm sewer eliminating the risk of storm water contamination from this source. Other significant pollutants are not expected to be present.

6.3 Best Management Practices

The structural BMPs are shown on the "Facility Source Areas and Associated BMPs Map" located in **Appendix A**. Other BMPs are described in **sections 6.4 - 6.7**.

6.4 Good Housekeeping Practices

Good housekeeping not only contributes to the prevention of accidents, but also supports worker health and safety programs, minimizes waste, and generally prevents deterioration of company property and equipment. Good housekeeping practices include:

Keeping outside areas in a neat and orderly condition.

Looking for evidence of drips or leaks from equipment and machinery on site.

Maintaining adequate access space in storage areas.

Making walkways and work areas easily accessible, safe, and free of protruding objects.

Using pre-established cleanup procedures for spills.

Regularly removing garbage.

6.5 Storm Water Outfall BMPs

The BMPs associated with storm water outfalls are listed in the SWPPP Summary Form 3400-167, and are also indicated on the "Facility Source Areas and Associated BMPs Map" both of which are located in **Appendix A**.

6.6 Site Inspections

The Blount facility's BMPs include site inspections. Where inspections indicate that insufficient attention is being paid to any item involved in the use, storage, transport, loading, or unloading of significant polluting materials, the SWPPP Coordinator will incorporate the necessary changes to address these deficiencies. These inspections will also be used to determine if preventive maintenance is necessary for any BMPs or equipment. Figure 1A is an inspection form to implement the program. These inspections will be done quarterly by the SWPPP Coordinator and records of these inspections will be kept in the MGE Corporate Records. Inspection of oil filled electrical equipment and fuel oil tanks is part of MGEs existing spill prevention, control, and countermeasures (SPCC) plan. Additionally, periodic inspections of oil and chemical storage areas are part of MGEs barrel management program. The specifics of these plans are outlined in the Environmental Management Program manual which is located in the Blount Station Laboratory.

6.7 Personnel Training

MGE developed and implemented before May 30, 1997, a storm water management training program for employees whose duties relate to operations and maintenance activities affecting storm water quality. In addition to introductory storm water training, on-the-job training will be used, as necessary, as part of this comprehensive program. The SWPPP Coordinator will review the personnel training program annually with supervisors to determine the effectiveness of and/or changes needed in the program. Training records will be kept in Corporate Records.

Section 7 DESCRIPTION OF ALL CONTAMINATED AND UNCONTAMINATED NON-STORM WATER DISCHARGES

7.1 Characterization of Non-Storm Water Discharges

The following list describes any non-storm water discharges for storm water outfalls.

- ⁴Outfall 1: No non-storm water discharges
- Outfall 2: No non-storm water discharges
- Outfall 3: No non-storm water discharges
- Outfall 4: Non-contaminated non-storm water discharge of non-contact cooling water permitted under WPDES Permit No. WI-0001961-6
- Outfall 5: Non-contaminated non-storm water discharge of non-contact cooling water permitted under WPDES Permit No. WI-0001961-6
- Outfall 6: Non-contaminated non-storm water discharge of non-contact cooling water permitted under WPDES Permit No. WI-0001961-6
- Outfall 7: Contaminated non-storm water discharge of process wastewater permitted under WPDES Permit No. WI-0001961-6

 $^{^4}$ Outfall 001 was re-routed through outfall 002

Section 8 SWPPP ADMINISTRATION

8.1 SWPPP Summary

The SWPPP Coordinator for Blount Generating Station must prepare and submit a SWPPP summary to the WDNR within twelve months from the effective date of coverage under the storm water general permit No. WI-S067857-1. The summary must be submitted on a standardized department form, which the WDNR has provided with the permit. The summary is included in **Appendix A**.

8.2 Monitoring Inspection/Requirements

At least twice per year at each storm water outfall, (excluding outfalls covered under WPDES Permit No. WI-0001961-6), the SWPPP Coordinator shall perform visual inspections during dry weather conditions for evidence of non-storm water discharges. These inspections will be recorded on a Blount Station Evaluation of Non-storm Water Discharge form (Figure2). The results of these inspections must be incorporated into the SWPPP, and include the following: date of inspection, test method, (e.g., visual), outfall location, results, and potential significant sources of non-storm water discovered.

An Annual Facility Source Exposure Inspectin (FSEI) (Figure 3) report must be completed by the SWPPP Coordinator annually by May 30 each year. The purpose of the (FSEI) is to verify that storm water discharged from the facility is not contaminated by industrial activity, and to evaluate storm water outfalls for the presence of non-storm water discharges. The SWPPP Coordinator will also assure that the site drainage conditions and potential sources of pollution identified in the SWPPP remain accurate, and that BMPs prescribed in the SWPPP are being implemented, properly operated, and adequately maintained. As part of the FSEI, Blount Generating Station will voluntarily perform and document quarterly field visual inspections of storm water discharge quality at each outfall on the SWPPP Quarterly Field Inspection Form (Figure 1B), excluding outfalls covered under WPDES Permit No. WI-0001961-6). These inspections must be conducted by the SWPPP Coordinator or a trained designee within the first thirty to sixty minutes after runoff begins discharging to the outfall. The inspections shall include any observations of color, odor, turbidity, floating solids, foam, sheen, or other obvious indicators of storm water pollution. Information from the quarterly inspections must include: the inspection date, personnel involved, visual quality of the storm water discharge, and probable source of any observed storm water contamination. The results of the FSEI are not to be sent to the DNR, but will be kept on site in the MGE Corporate Records

8.3 Implementation Schedule

The first AFSCI and the first quarterly visual inspection of the storm water discharge quality must be conducted within twenty four months of the effective date of coverage under the general permit. The BMPs must be implemented within twenty four months of the above effective date. The SWPPP implementation schedule is provided in **Section 9**. These have previously been completed under the previous Tier 2 permit WI–S067857-1.

8.4 Record Retention Requirements

Records described in the SWPPP must be retained on-site for five years beyond the date of the cover letter notifying the facility of coverage under a storm water permit, and shall be made available to the WDNR upon request. The records will be kept in MGE Corporate Records.

8.5 Provisions for Amendment of the Plan

The SWPPP will be amended as needed to reflect operational changes affecting storm water quality, including a description of the changed operations that contribute to increased pollutant loading, changes to BMPs, or additional treatment technologies. Also included will be an estimate of the new or increased discharge of pollutants following revised plan implementation.

The SWPPP will also be amended if the WDNR determines that the SWPPP is ineffective in protecting storm water quality.

The Blount Generating Station facility must notify the WDNR in the event of any facility operational changes that could result in additional significant storm water contamination.

Section 9 ACTION PLAN CHECKLIST

The purpose of this section is to identify the schedule to implement the BMPs described in **Section 6**.

Storm Water Pollution Prevention Action Items	Implementation Date
Submited SWPPP Summary to WDNR	May 1996
Conducted Monitoring Inspections	May 1997
Implemented Employee Training	May 1997
Implemented Source Control BMPs	May 1997

APPENDIX A

Inspection Form (Figure 1A)

Quarterly Field Visual Inspection (Figure 1B)

Blount Station Evaluation of Non-storm Water Discharge (Figure 2)

Annual Facility Source Exposure Inspection Report (FSEI) (Figure 3) Redone

SWPPP Summary Form 3400-167

Blount Generating Station Drainage Map

Facility Source Areas and Associated BMPs Map

Facility Secondary Containment /Berm Structure Map

(Figure 1A) INSPECTION FORM

AREA	ITEM	COMMENTS
Coal yard	Secondary containment structure and berm integrity	
Coal yard	Oil and chemical tank integrity	
Alternate fuels area	Absence of oil stains	
Alternate fuels area	Good housekeeping	
Front gate area	Good housekeeping	
Front gate area	Absence of oil stains	
#3-Turbine loading dock	Metals dumpster closed	
Switchyard	Secondary containment structure and berm integrity	
Gravel areas	Berm integrity	
Storm water outfalls	Absence of pollution	

Individual performing inspection:
Signature:
Date:
General Comments:

(Figure 1B)



Stormwater Pollution Prevention Plan QUARTERLY VISUAL FIELD INSPECTION

This inspection should be performed when sufficient runoff occurs during daylight hours. Try to make observations within the first 30 minutes or as soon thereafter as practical (but not to exceed 60 minutes) after runoff begins discharging from the outfall. If you find visible pollution, note the probable source and list any possible BMPs that could be used to reduce or eliminate the problem.

Make any necessary changes to the Storm Water Pollution Prevention Plan as needed.						
		B. Facility Add	B. Facility Address			
Madison Gas and Electric Company Blount Generating Station						
C. Name of Person Con	ducting Inspection	n	D. Date of Ins	pection		
2						
E. Employer			F. Telephone	Number		
Madison Gas and	d Electric Comp	any				
G. Outfall Number (mak	e reference to sit	e map)	'			
H. Describe Outfall (e.g	. ditch, concrete p	pipe, grassed swal	e, etc.)			
Time of Rainfall Even	nt		J. Time of Vis	ual Inspection		
K. Optional: Amount of	f Rainfall at the tir	me of observation	(nearest tenth of an ir	nch)		
				rbidity, floating solids, for observed storm water co	am, oil sheen or any other ontamination.)	
Color:	☐ Clear	□Red	☐ Yellow	□ Brown	Other:	
Odor:	□ None	☐ Musty	☐ Sewage	☐ Rotten Egg	Other:	
Clarity:	☐ Clear	☐ Cloudy	☐ Opaque	☐ Suspended Solids	Other:	
Floatables:	□ None	☐ Foam	☐ Garbage	☐ Oily Film	Other:	
Deposits/stains:	☐ None	☐ Oily	□ Sludge	☐ Sediments	Other:	
Comments:	Comments:					
					A1 A1	
☐ This outfall could not	t be evaluated du	ring this quarter di	ue to the following rea	son:		
	0 0					

White - Safety & Environmental Affairs

Yellow - Blount Generating Station

(Figure 2) BLOUNT STATION EVALUATION OF NON-STORM WATER DISCHARGES

(To be completed semi-annually)

Storm Water Outlan 002 (PDF Parking Area)	
Dry Inspection:	
Performed By: Date of Inspection: Time of Inspection: Test Method: Visual Inspection	
Describe observations of outfall (Include any observations including flow, stains, sludge, color, odor, or other indications of a non-storm water discharge.	
Observations:	
	_
Storm Water Outfall 003 (Front Gate Area)	
Dry Inspection:	
Describe observations of outfall (Include any observations including flow, stains, sludge, color, odor, or other indications of a non-storm water discharge.	
Observations:	
	_
	_

Certification Statement

"I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for providing false information, including the possibility of fine and imprisonment."

Name:	
	Executive Director - Blount Generating Station
Date:	

(Figure 3)

BLOUNT STATION ANNUAL FACILITY SOURCE EXPOSURE INSPECTION REPORT (FSEI)

(To be completed annually before May 30)

Inspector's Initials

Quarterly Rainfall Outfall Inspections: (refer to attached inspections for details)

Outfall

002 (PDF Parking Area)

Date of Inspection

002 (PDF Parking Area)		
002 (PDF Parking Area)		
002 (PDF Parking Area)		
003 (Front Gate Area)		
003 (Front Gate Area)		
003 (Front Gate Area)		
003 (Front Gate Area)		
•	nwater pollution observed during	any inspection at either outfall? Yes or No
If yes please describe below.		
Comments:		

Semi-Annual Dry Weather Inspections: (refer to attached inspections for details)

Outfall	Date of Inspection	Inspector's Initials
002 (PDF Parking Area)		
003 (Front Gate Area)		
Were there any non-stormwate	r sources observed during a	, I
If yes please describe below.		Yes or No
Comments:		
~		
C	ertification Stat	ement
direction or supervision in according properly gather and evaluate the persons, who manage the syste information; the information contains the systematical experiments of the systematical ex	ordance with a system design the information submitted. But m, or those persons directly ontained in this document is lete. I am aware that there a	, to the best of my knowledge and are significant penalties for providing
Name: Executive Director - Bl		

Date:

State of Wisconsin Department of Natural Resources P.O. Box 7921 Madison, WI 53707 Storm Water Pollution Prevention Plan Summary
For Storm Water Discharge Associated With Industrial Activity
Under Wisconsin Pollutant Discharge Elimination System
(WPDES) General Permit
Form 3400-167 11-94

This form is authorized by s. NR 216.29(1)(e). Wis. Admin. Code. Submittal of a completed form to the Department is mandatory for industrial facilities covered by a storm water general or individual permit, excluding coverage described in s. NR 216.21 (2)(c), Wis. Admin. Code. Failure to submit a completed form to the Department may result in fines up to \$10,000 per day pursuant to s. 147.21, Wis Stats. Personally identifiable information on this form may be used for other water quality program purposes.

A. Name of Facility Shown on Permit Madison Gas and Electric Company Blount Generating Station	C. Facility Address - Street (if different than mailing address) 717 East Main Street, Madison, WI 5370.
B. Mailing Address - P.O. Box, Street, or Route Post Office Box 1231	D. City, State, and Zip Code Madison, Wisconsin 53701-1231

A. Name Jeff Marcouiller	D. Position Tide Supervisor - Laboratory and Water Systems
B. Mailing Address - P.O. Box, Street, or Route Post Office Box 1231	E. Company Name Madison Gas and Electric Company
C. City, State, and Zip Code Madison, Wisconsin 53701-1231	F. Telephone Number (608) 252–7311

SECTION III: SIGNATURE (Person attesting to the accuracy and completeness of the Storm Water Pollution Prevention Plan and Summary)

This form must be signed by an official representative of the permitted facility, in accordance with Part VI section M of the general permit. IF THIS FORM IS NOT SIGNED, OR IS FOUND TO BE INCOMPLETE, IT WILL BE RETURNED

"I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information contained in the plan. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information; the information contained in this document is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for providing false information, including the possibility of fine and imprisonment. In addition, I certify under penalty of law that, based upon inquiry of persons directly under my supervision, to the best of my knowledge and belief, the provisions of this document adhere to the provisions of the storm water permit for the development and implementation of a Storm Water Pollution Prevention Plan and that the plan will be complied with."

A. Signature	E. Date Signed
B. Type or Print Name Steven Schultz	F. Position Title Executive DirBlount Generating Station
C. Mailing Address - P.O. Box, Street, or Route Post Office Box 1231	G. Company Name Madison Gas and Electric Company
D. City, State, and Zip Code Madison, Wisconsin 53701-1231	H. Telephone Number (608) 252-7301

EXISTING FACILITIES: THIS FORM SHALL BE SUBMITTED TO THE DEPARTMENT WITHIN 12 MONTHS FROM THE EFFECTIVE DATE OF COVERAGE UNDER THE STORM WATER GENERAL PERMIT.

FACILITIES CONSTRUCTED ON OR AFTER NOVEMBER 1, 1994: THIS FORM SHALL BE SUBMITTED TO THE DEPARTMENT PRIOR TO INITIATING CONSTRUCTION.

Mail to: State of Wisconsin

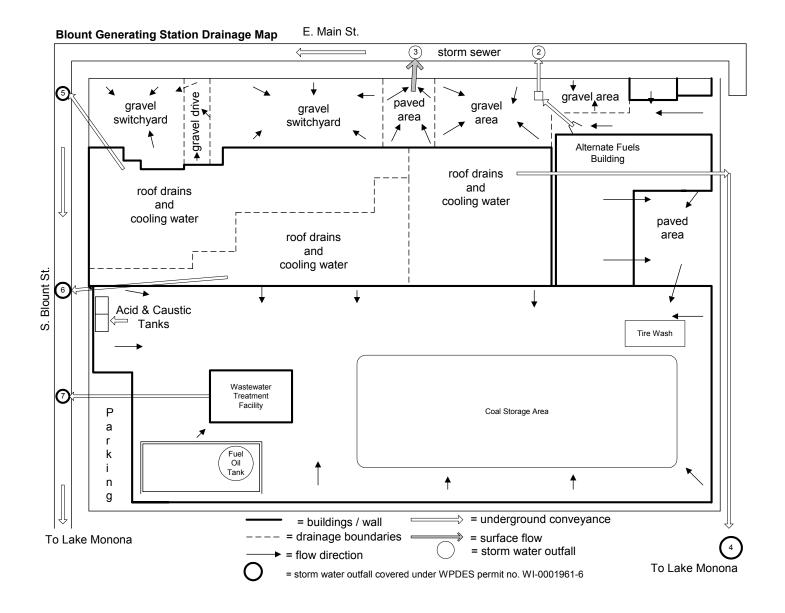
Department of Natural Resources Bureau of Wastewater Management

WPDES Permit Section

P.O. Box 7921

Madison, WI 53707 - 7921

FOR DNR U	SE ONLY
Date Received:	
FIN Number:	
FID Number:	
Editor I.D.:	
Date Edited:	
Other:	



Facility Source Areas and Associated BMPs Map

To Lake Monona

E. Main St. (3) (2) storm sewer Covered Metals Switchyard & Garbage Storm Water Not Dumpsters Pumped To Storm Sewer Oil Pads Available For Trucks Oil Pads Available For Trucks roof drains and Alternate Fuels cooling water roof drains Building and cooling water roof drains and S. Blount St. cooling water 6 Acid & Caustic Oil Pads Available Tanks For Trucks Tire Wash Wastewater Treatment Facility Р Coal Storage Area а k Fuel Oil Tank n

• = buildings

– = drainage boundaries

■ = berm/ secondary

containment

= underground conveyance

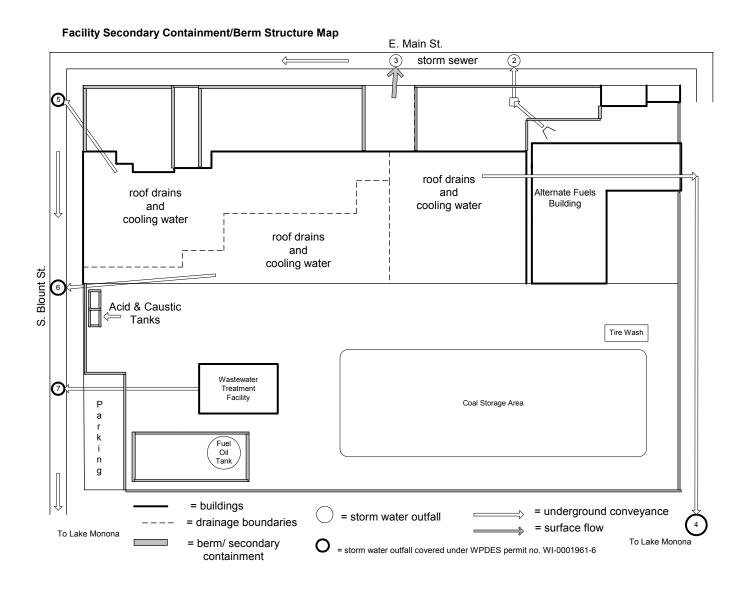
= surface flow

= storm water outfall

=storm water outfall covered under WPDES permit no. WI-

0001961-6

To Lake Monona



CERTIFICATIONS FOR NR 538 ASH REUSE

State of Wisconsin Department of Natural Resources Box 7921, Madison, WI 53707-7921

Authorized Representative

Ed Maass

Beneficial Use of Industrial Byproducts Initial Certification

Form 4400-197

(2/98)

NOTICE: This form must be completed and provided to the Department of Natural Resources prior to the initiation of the beneficial use of an industrial byproduct, when the classification of an industrial byproduct has changed or for the establishment of a storage facility for beneficial use of an industrial byproduct, in accordance with s. NR 538.14(1), Wis. Adm. Code. Unless an initial certification form is filed under NR 538.14, Wis. Adm. Code, the beneficial use or storage of industrial byproducts may be subject to licensing under s. 289.31, Wis. Stats., and the regulatory requirements under chs. NR 500 to 536, Wis. Adm. Code.. Information provided on this form is open to inspection under Wisconsin's Open records law. Personally identifiable information provided is intended to be used for purposes related to the waste management program.

Note: a separate form must be used for each industrial bypro	duct, and each storage facility	' .	•
This initial certification is for (check one)	a storage facility		
Company			
Madison Gas and Electric Company		•	
Contact/Title .	Telephone		
Ed Maass, Director - Blount Operations	(608) 252-7306		
Mailing Address	City	State	ZIP
717 East Main Street	Madison	WI	53701
Location of Byproduct Generator/Storage Facility (If different th		1 112	1 337.01
		•	
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Director

- Blount Operations

State of Wisconsin Department of Natural Resources Box 7921, Madison, WI 53707-7921

Beneficial Use of Industrial Byproducts Initial Certification

Form 4400-197

(2/98)

NOTICE: This form must be completed and provided to the Department of Natural Resources prior to the initiation of the beneficial use of an industrial byproduct, when the classification of an industrial byproduct has changed or for the establishment of a storage facility for beneficial use of an industrial byproduct, in accordance with s. NR 538.14(1), Wis. Adm. Code. Unless an initial certification form is filed under NR 538.14, Wis. Adm. Code, the beneficial use or storage of industrial byproducts may be subject to licensing under s. 289.31, Wis. Stats., and the regulatory requirements under chs. NR 500 to 536, Wis. Adm. Code.. Information provided on this form is open to inspection under Wisconsin's Open records law. Personally identifiable information provided is intended to be used for purposes related to the waste management program.

Consideration (Statement Section 2015)	And the second s		
Note: a separate form must be used for each industrial byprodu			
This initial certification is for (check one)	X a storage facility		
Company			
Madison Gas and Electric Company			
Contact/Title	Telephone	•	
Ed Maass, Director - Blount Operations	(608) 252–7306		
Mailing Address	City	State	ZIP
717 East Main Street	Madison	WI	53701
Location of Byproduct Generator/Storage Facility (If different that	an mailing address)		
स्टिप्क विवर्षे सुन्दर्भात् के विभिन्ना हरू			
Type of industrial byproduct:			
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other - Describe:			
	•		
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Describe the process generating the industrial byproduct:			
Electric generating plant burns coal in texhaust gases are routed through a mechan			
Classification of industrial byproduct in accordance with s. NR 53	8.08, Wis. Adm. Code. (check one)	
Category 1	□ 2	□ 5	•
NOTE: Test results supporting the classification must be included name and address of the generators of the industrial byproducts t			
Volume available on an annual basis for beneficial use (in cubic	yards):		
	10,000 to 16,000		
	. Variable of the second of th		
Continue Same			
Department of Natural Resources staff is hereby authorized to cor byproducts and collect necessary samples to verify compliance wi information on this form is true, accurate and complete to the best	ith ch. NR 538 Wis. Adm. Code. 11	hereby certify	y that the above

described will meet the performance standards of s. NR 538.04, Wis. Adm. Code.

<u>Director - Blount Operations</u>

Date

THERMOSTAT RECYCLING AD



Contractors can bring old thermostats to Madison Gas and Electric (MGE) to be recycled. Help keep mercury out of our environment.

It's easy! Follow these steps:

• Remove the entire old thermostat. **Do not** remove the mercury bulb from the unit. Do not bring in thermostats that are leaking mercury.

• Drop off thermostats at the Customer Service area located on the first floor of MGE's main office at 133 S. Blair St., Madison. Hours are 8 a.m. - 4:30 p.m., Monday - Friday. (Visitor parking off Railroad Street.

Watch for parking signs.)

For more details, call the MGE Home Energy Line at 252-7117.

your community energy company



MERCURY MANAGEMENT PLAN

Madison Gas and Electric Company's Draft Mercury Management Plan

Madison Gas and Electric Company (MGE) feels it is important to develop a system to inventory our mercury-containing items so we know where they are located and can prioritize how we will manage them. MGE has already taken the first step in reducing our risk by removing approximately 1,000 pounds of mercury from our Blount Station. But, we would like to take our mercury-reduction efforts a step further, and that is the intent of MGE's Mercury Management Plan.

MGE's Mercury Management Plan will include the establishment of a Mercury Management Team; a preliminary and in-depth mercury inventory; a schedule for mercury removal based on potential environmental harm, release risks, and other criteria; the development of a mercury management procurement guideline; increased education and training to our employees; and an employee safety assessment. MGE's Mercury Management Plan is described in greater detail below. If you have questions or comments about MGE's Mercury Management Plan, please contact Mike Ricciardi at (608) 252-7321.

MGE's Mercury Management Team

MGE will establish a Mercury Management Team. The team will be responsible for overseeing MGE's Mercury Management Plan and communicating that plan to MGE employees. The team will consist of representatives from the following areas in the Company:

- Blount Station
- Electric Operations
- Gas Operations
- Facilities Management
- Safety and Environmental Affairs
- Service and Metering
- Materials Management

The team will consult with employees from other key areas within the Company when appropriate. The team will also work with MGE's established environmental committees, the Green Team Leaders, and Management Environmental Task Force (METforce) members to achieve its mercury management goals.

Preliminary Walk-Through Inventory of Mercury-Containing Equipment

The Mercury Management Team or their designee will conduct an initial walk-through of all MGE facilities. This initial walk-through will be conducted by October 31, 2003. The purpose of this walk-through is to get an estimate of how many mercury-containing items exist at MGE. During this walk-through, team members or their designees will also document items that can easily be replaced or removed such as mercury-containing items that are out of service or in storage. Any items that can easily be removed will be removed in a timely manner.

Conduct an In-Depth Mercury Inventory

The Mercury Management Team will conduct an in-depth mercury inventory by October 31, 2004. The in-depth inventory will include a thorough evaluation of mercury-containing equipment at MGE facilities.

The team recognizes that mercury inventories have been conducted at other companies and utilities, and information on mercury-containing items and their alternatives is available. The team will use existing information as much as practicable in preparation for their in-depth inventory.

Depending on what is discovered through reviewing other companies' inventories, the team will make a decision whether to include an inventory of waste streams and/or mercury-containing products in this inventory. Preliminary research of other companies' mercury inventories has demonstrated that a review of products and waste streams has not been as effective in removing mercury as reviewing equipment. The team will use existing data to make a final determination.

Inventory Description

The team members or designees will visit each MGE facility. Team members or designees will search for mercury-containing items using generator knowledge, a list of potential items (based on research), and process and site descriptions. Each mercury-containing item will be labeled and documented on a table containing the following headings:

- Description of the item (e.g., switch, manometer, etc.)
- Location or function of the item
- Manufacturer and/or supplier
- Part or model number
- Amount of mercury per item
- Number of items
- Total pounds of mercury
- Whether the item is at high, medium, or low risk for a mercury release

The risk of release will be determined using best judgment according to the following guideline:

- **High Risk Items** items which are moved frequently or permanently located in an area accessible to many people and may release mercury
- **Medium Risk Items** items which are moved infrequently or permanently located in an area that is not as accessible but may release mercury
- Low Risk Items items which will not release mercury under any foreseeable circumstances

The inventory tables will be arranged in a manner suitable for evaluation. Most likely, a computer spreadsheet will be used to document and track the inventory.

Exceptions to the Inventory

Because of the ubiquitousness of lighting and thermostats, these items will not be considered in the inventory. MGE currently recycles our lighting waste and thermostats and also recycles customers' thermostats when requested. As other items are identified, there may be a need to add them to the list of exceptions.

Schedule for the Replacement of Mercury-Containing Equipment

Once the in-depth inventory is completed, the Mercury Management Team will be able to determine mercury-reduction goals and a schedule for replacing mercury-containing items within MGE facilities in Madison and the vicinity. MGE anticipates we will have some mercury-containing items that can be immediately replaced and will do so where practicable.

In setting the replacement schedule, team members will take the following into consideration:

- An item's location relative to environmental receptors
- An item's risk of mercury release
- An item's location relative to a heated surface or heat source
- Employee access to the item
- Whether any equipment needs to be decommissioned in order to remove the mercurycontaining item
- The possibility of replacing that item with a mercury-free alternative including consideration of:
 - ✓ Availability of the alternative
 - ✓ Reliability of the alternative
 - ✓ Expected longevity of the alternative
 - ✓ Whether the alternative is safer and more environmentally friendly than mercury
 - ✓ Cost of replacing the current item with the alternative (including labor costs)
 - ✓ Risk associated with the current item
 - ✓ Recycling outlets for the mercury-containing item
 - ✓ Whether replacement of that item is tied to a capital project

Preliminary Schedule

Team members will consider those mercury-containing items that have the highest risk of release and greatest threat to the environment first (if using the scoring method, these would be the items that scored a four through six). These items will be considered and replacement schedules set by December 31, 2004, based on the criteria above.

Once the high-risk items are evaluated, team members will evaluate all other items and set a replacement schedule based on the criteria above by December 2005. MGE anticipates all

mercury-containing equipment that is considered replaceable will be phased out over a ten-year period.

Exceptions to the Replacement Schedule

MGE will make every effort to remove mercury where practicable. There will be items, however, that will not have alternatives. There will also be key pieces of equipment MGE will not be able to replace because of the risks involved in equipment failure. There will be items that are not readily accessible, and the risks involved in accessing those items will have to be considered. In addition, team members will identify mercury-containing items that have relatively insignificant amounts of mercury and no real potential for release. It is MGE's intention to document those items so they are handled properly when their useful life is complete. We will phase those out over time where practical by developing restrictions on purchasing mercury-containing items.

Mercury Recycling Plan

MGE currently recycles mercury-containing items when we dispose of them. In addition, MGE uses the Thermostat Recycling Corporation for any thermostats we collect of our own and from our customers and contractors. Through the Environmental Cooperative Agreement with the Wisconsin Department of Natural Resources, MGE is extending thermostat recycling further.

Mercury Management Procurement Procedure

MGE's preliminary research on mercury inventories and management programs included evaluating companies' overall mercury management programs not just the inventories. MGE discovered that in addition to the inventory, these companies established and distributed procurement guidelines for their vendors. MGE plans to establish a procurement procedure that will include communicating our purchasing guidelines to all vendors.

Employee Education

MGE currently educates our operational employees on the hazards associated with mercury, mercury recycling, and disposal restrictions. In addition to the annual training, a select group of employees receive mercury cleanup training (for small, manageable amounts of mercury).

Employee Safety

The Mercury Management Team will assess the safety hazards associated with the replacement plan and work with MGE's Safety Manager or Senior Safety Specialist to ensure employee safety is considered.

PCB TRANSFORMER PLAN

PCB Transformer Plan

In March 2001, Electric Transmission and Distribution (ETD) began a comprehensive program to test more than 6,600 untested distribution transformers. As of January 2003, 5,392 transformers have been tested. Present plans are for this testing to be completed in the first quarter of 2003.

As part of this program, all transformers that are found to be PCB transformers¹ are replaced as soon as practicable. The PCB transformers are disposed of in accordance with Company procedures and in compliance with applicable local, state, and federal regulations. As of January 2003, 55 PCB transformers have been replaced as part of this program. All distribution PCB transformers will be replaced by the end of 2003.

In addition in 2003, ETD will develop a plan to replace all distribution PCB-contaminated² transformers over a ten-year period. It is anticipated the plan will coordinate with other planned system improvement projects.

-

¹ PCB transformers are defined in the regulations as any unit which contains 500 parts per million (ppm) or greater PCBs.

² PCB-contaminated transformers are defined as any unit which contains 50 ppm or greater PCBs but less than 500 ppm. Any unit which contains less than 50 ppm PCBs is classified as non-PCB.

STORMWATER MANAGEMENT PROPOSAL

Madison Gas and Electric 623 Parking Lot

Madison Gas and Electric 623 Parking Lot Stormwater Management Proposal

As part of the Environmental Cooperative Agreement between Madison Gas and Electric (MGE) and the Wisconsin Department of Natural Resources (DNR), MGE has agreed to "propose a voluntary stormwater pollution prevention demonstration project...". In July 2001, MGE constructed an innovative stormwater filtration system at their newly constructed Blount Distribution Substation site. The engineered filtration bed received runoff from a small adjacent parking lot, filtered the runoff through a sand media, and discharged to a perforated collection system connected to a city storm sewer.

The next site for a proposed stormwater management practice is the MGE parking lot at 623 East Main Street. This parking lot is 1.39 acres in area and drains to Lake Monona via a city storm sewer system. This parking lot is used for MGE employee use as well as for visitor parking.

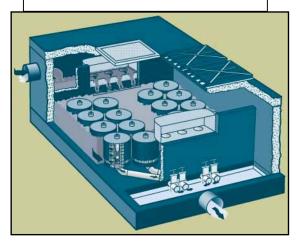
Stormwater runoff from areas such as parking lots contain pollutants such as lead, cadmium, sediment, phosphorus, and oil and grease drippings from cars. These pollutants have an adverse effect on aquatic environments such as Lake Monona. Storm sewers are often a direct conduit to natural water bodies during rainfall events for these pollutants.

MGE proposes to install storm water filter(s) at the 623 parking lot to remove the majority of these pollutants from the stormwater before it reaches Lake Monona. MGE is working with Earth Tech, an engineering firm, and Stormwater Management Inc. (SMI), a manufacturer of stormwater filters, to develop a plan to install the filters. In addition, they are collaborating with the U.S. Forest Products Research Lab in investigating innovative stormwater filter media made from processed recycled wood product waste material. The overall project is being coordinated through the DNR—specifically with Mr. Jim Bertolacini, stormwater specialist.

Stormwater Management Inc., StormFilter Description

The SMI StormFilter system consists of an underground concrete vault housing filter canisters. An upstream manhole diversion structure would shunt the water to be treated to the filter unit and allow the flood flows to bypass the device. An initial chamber traps larger materials in the runoff. Stormwater pollutants are filtered out in the filter canisters. A system of float operated valves control the flow through the filters. The filters are designed so that particles on the filter surface slough off to the vault floor, thereby increasing the longevity of the filter. The manufacturer initially recommends that filter media be replaced approximately once a year. The actual filter media replacement schedule will depend on routine inspections of the system. The filter canisters and valves

Schematic of StormFilter™ System



are noncorrosive plastic to minimize maintenance issues. Filter media can be material such as perlite, compost pellets, or potentially in this case, processed recycled wood product waste material.

Stormwater Management Proposal

Madison Gas and Electric 623 Parking Lot

The sediment removal rates of StormFilters have been measured in laboratory analysis. According to manufacture's literature, a StormFilter™ was predicted to have a 70 percent sediment removal rate for a similar Wisconsin location.

StormFilter™ Conceptual Plan

MGE, SMI, and Earth Tech have developed two conceptual plans for installing StormFilters[™]. The first plan consists of one concrete filter vault and the second plan has two concrete filter vaults. The parking lot in question has two stormwater inlets and two 10-inch diameter storm sewer laterals which tie into the larger 48-inch-x-76-inch elliptical storm sewer pipe. (See attached figures.)

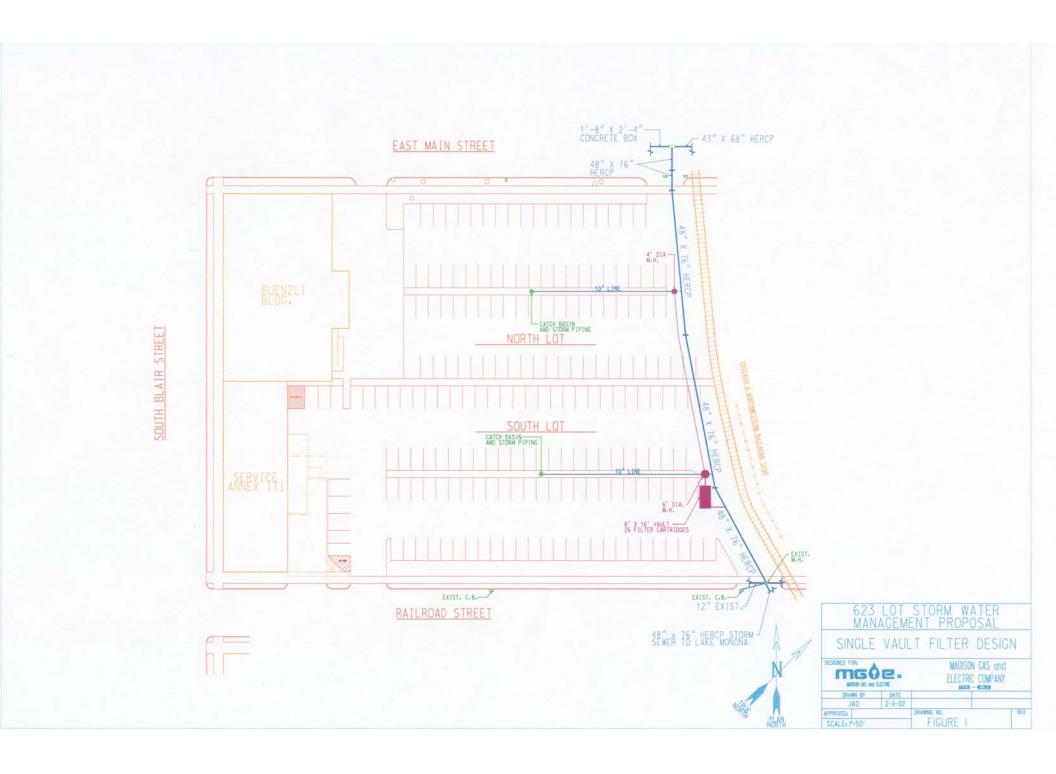
This first plan would connect the north 10-inch diameter storm sewer lateral to the south 10-inch diameter storm sewer lateral with a new storm sewer. This new storm sewer would run along the east edge of the parking lot (Figure 1). Once connected, the flow from these laterals would be treated in one (higher capacity) StormFilter™ vault and then discharge into the larger elliptical storm sewer. This vault would contain 26 individual filter cartridges. These filters would treat the water from 1.37 acres of parking lot.

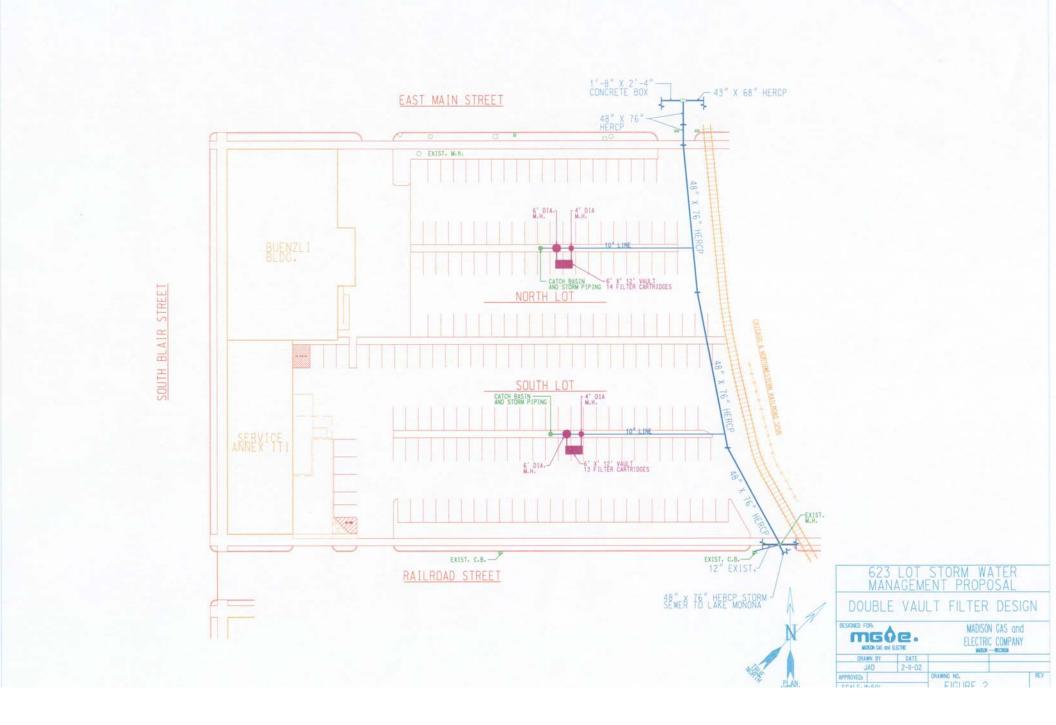
The second plan has an individual StormFilter™ vault for each 10-inch diameter storm sewer lateral (Figure 2). The north unit would have 14 filter cartridges and treat 0.73 acres of parking lot. The south unit would have 13 filter cartridges and treat 0.67 acres of parking lot.

MGE, Earth Tech, SMI and the U.S. Forest Products Research Lab will have a meeting in February 2003 to discuss the use of processed recycled wood product waste material as filter media for the StormFilter™. It is planned that these StormFilters™ will be installed the summer of 2003. It is also the intent of MGE that the filters will be installed in a manner that will facilitate public observations of the system and its inside "workings" to treat stormwater runoff.

Monitoring Options

MGE is exploring monitoring and instrumentation options for the StormFilter™ project through discussions with SMI, DNR, and the United States Geological Survey. Effective monitoring would involve significant costs for the proper collection, logging, and analysis for evaluating runoff quantity and quality. Funding options are being explored with state and federal agencies as a cost share with MGE.





BLOUNT STATION NOISE RESPONSE PLAN

Blount Station Noise Response Plan

Neighbors in the area of Blount Station experiencing noise problems should be instructed to call the following numbers to report the condition:

• During normal working hours 252-7306

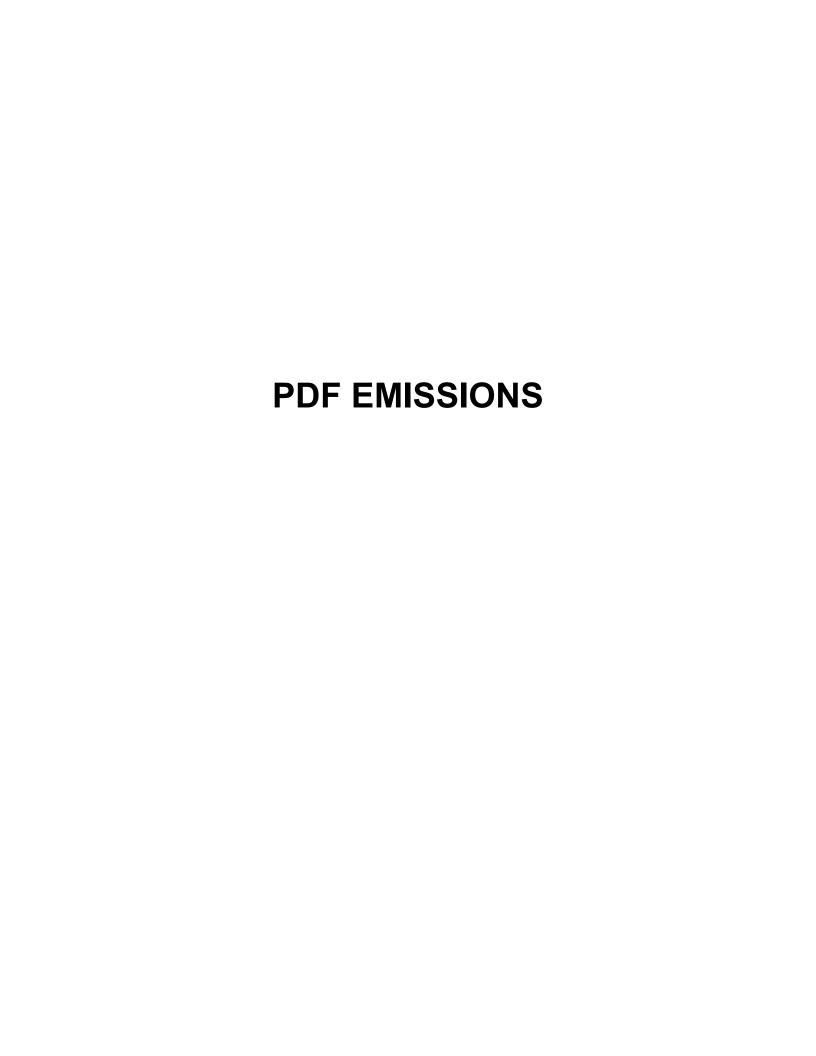
The following information should be collected regarding each complaint:

• After Hours - 252-7111

Information on calls received at this number should be forwarded to the Blount Operations Supervisor for resolution at 252-7310 or 252-7304, this sheet to the operations supervisor at 252-7327

Call received by: _____ Date: ____ Time: _____ Caller's name: _____ Phone number for response: _____ Type of noise (e.g., bang, screech, whistle, whine, vibration, other): Frequency of noise (e.g., continuous, intermittent, repetitive): ________

Date and time of occurrence: Date: _______ Start time: ______ End Time: ______ Apparent noise source: When information regarding the noise complaint is received by the Bount Operations Supervisor, efforts should be made to eliminate the source of the noise as soon as practicable. If the noise source is related to equipment operations and removing the equipment from service does not affect plant operation, it should be removed from service and evaluated as soon as practicable. If removing the equipment from service does impact plant operation, steps should be taken to minimize noise production, and the system operation center should be consulted to determine when the unit can be removed from service for further investigation. The Director of Blount Operations should contact the customer who called in the complaint during the next business day and provide an update on the source and status of the noise. Data regarding this event and its resolution should be recorded in the Blount noise log, and a copy of the entry should be forwarded to MGE Senior Director - Safety and Environmental Affairs and Executive Director - Blount Station. Operations Supervisor: Action taken: _____ Follow-up by: _____ Date: ____ Time: ____



Summary

HAP LIMITS FOR 12 CONSECUTIVE MONTH PERIOD

	Arsenic	Beryllium lbs/n	Cadmium nonth	Nickel	
October-02 November-02 December-02 January-03 February-03 March-03 April-03 May-03 June-03 July-03 August-03 September-03 October-03	0.03	0.04	0.00	0.04	
	0.02	0.00	0.03	0.15	
	0.02	0.00	0.03	0.15	
4-month emissions total	0.06	0.05	0.07	0.35	
12-month emissions total	N/A	N/A	N/A	N/A	
ECA limit, 12 consecutive months	9	13	21	187	

VBA'S STATEMENT OF QUALIFICATIONS

VBA and **JWhitehouse Qualifications** and **Personnel**

Van Breusegen & Associates, Inc. (VBA) has been providing environmental auditing, consulting and management system services to industrial and commercial clients since October 1994 and has completed over 700 environmental compliance projects in 48 states in the U.S., three provinces in Canada, and two states in Mexico.

Specific to environmental compliance services, VBA personnel have completed numerous projects throughout the United States including regulatory applicability determinations, new source air permit applications; Title V air permit applications; air dispersion modeling; emission inventories; SPCC / SWPPP plans; NPDES permit applications; POTW permit applications; Phase I assessments; TRI reports; RCRA training; and development and implementation of comprehensive environmental management programs. Additionally VBA has participated in large-scale property transaction and/or business due diligence assessments throughout North America that included ASTM, CSA and multi-national EH&S compliance.

Specific to environmental auditing, VBA personnel have conducted comprehensive environmental compliance audits and protocol-specific compliance audits of more than 275 industrial and commercial facilities located in the United States, Canada and Mexico. Audit protocols covered include air, hazardous waste management, storm water management, solid waste management, Emergency Planning and Community Right to Know (EPCRA), pesticide management, PCBs, TSCA, USTs, ASTs, Spill Prevention Control & Countermeasure (SPCC), wastewater, remedial actions, drinking water, Title 33 (Coast Guard), California Business Plans, Proposition 65 (California), and DOT. In conjunction with these audits, VBA personnel have worked with several electronic audit reporting systems, including Lotus Notes EQM, Microsoft Access, and Microsoft Word.

Specific to health and safety auditing, JWhitehouse & Associates, Inc. (JWA) personnel have conducted health and safety audits of over 100 facilities throughout the United States, Canada and Europe. Audit protocols/standards are adapted to meet the client's needs and have included audits to determine compliance with OSHA regulations, company procedures and guidance documents and best management practices (including OSHA's Voluntary Protection Program requirements). Risk-based assessments and due diligence evaluations have also been completed as part of business and property transactions. JWA personnel have provided health and safety consulting services to GE Power Systems, GE Nuclear Energy, Kimberly-Clark Corporation, Von Roll IsolaUSA, Pfizer, Revlon, BestFoods Baking Company, Koch Industries, Finch, Pruyn & Company, Albany City School District and New York State United Teachers.

Client Summaries - Compliance Auditing

Anheuser-Busch Companies

VBA personnel actively participate as team members for the Anheuser-Busch Companies (A-BC) environmental audit program and have done so since 1992. Anheuser-Busch Companies and subsidiary companies are recognized industry leaders in the arena of environmental compliance and environmental compliance auditing. VBA personnel are specifically recognized by ABC for their ability to complete any of ABC's established environmental protocols, their ability to draft accurate audit exceptions, their client management skills and their attention to detail. VBA personnel have completed audits of breweries, can manufacturing plants, lid manufacturing plants, glass manufacturing plants, grain elevators, theme parks (Sea World Parks and Busch Gardens Parks), label printing operations, malting plants, box printing operations and rail car

refurbishing operations. In calendar year 2003, VBA personnel will participate in and/or lead environmental audits of 12 A-BC operations.

Additionally, prior to divestiture by Anheuser-Busch Companies, VBA personnel conducted environmental audits/reviews of 25+ Campbell Taggart, Inc. (CTI/Earthgrains) facilities. As part of the CTI audit program, VBA provided updated storm water pollution prevention plans and SPCC plans for most CTI operations.

Koch Industries, Inc.

Beginning in 1999, VBA was selected to conduct environmental compliance audits as a subcontractor for the prime auditing consulting firm for Koch Industries, Inc. (KII), the second largest privately held company in the United States (estimated annual revenues = \$40 Billion; Forbes Magazine – December 2002). Following technical presentations in the spring of 2000, VBA was awarded the entire fiscal year 2000 environmental compliance audit program for KII, completing 26 audits in the United States and Canada. VBA was subsequently exclusively selected by KII to perform environmental compliance audits for 31 facilities in calendar year 2001, 30 facilities in calendar year 2002 and has been selected as the exclusive provider of environmental compliance audits for calendar 2003. VBA personnel have completed audits of petroleum terminals, asphalt emulsion plants, sulfuric acid plants, natural gas fractionators, membrane manufacturing plants, flare manufacturing plants, heat exchanger manufacturing plants, petroleum gathering areas, cryogenic ammonia storage and transportation facilities, propane storage and transportation facilities, coal handling facilities, and petroleum gathering operations.

Koch Materials Company

During calendar year 2001 and 2002, VBA completed Federal, State and Local environmental applicability determinations for 81 Koch Materials Company facilities located in 30 states. These determinations included a one day site visit and Excel deliverable listing all regulations and identified as applicable, conditional or non-applicable. Conditional and applicable categories additionally contained site-specific regulatory guidance.

Koch Chemical Technology Group

Following divestiture by Koch Industries, Inc. in calendar year 2001, Koch Chemical Technology Group (KCTG) selected VBA to conduct environmental compliance audits of nine (9) industrial facilities located in the United States and Canada for calendar year 2002 and five (5) facilities in calendar year 2003.

Koch Pipeline Company

Following divestiture by Koch Industries, Inc. in calendar year 2001, Koch Pipeline Company selected VBA to conduct environmental compliance audits of twelve (12) industrial facilities located in the United States for calendar year 2002 and recently selected VBA as the exclusive provider of environmental audits in calendar year 2003.

3M

Following qualification proposals and capability presentations from multiple national firms in 2001, 3M selected VBA to conduct program specific audits of twelve North American facilities in calendar year 2002 and recently selected VBA for 14 audits in calendar 2003.

Heinz

Following resource capability proposals and demonstration audits in 2002, VBA was selected to enter into a master services agreement for environmental applicability determinations and multi-media environmental compliance audits for the Heinz Corporation.

General Electric – Structured Finance Division

VBA, in conjunction with JWA, was selected in third quarter 2002 to conduct a comprehensive EH&S conformance audit and Phase I ESA in support of a large financial package provided by GE Structured Finance Division to a privately owned Theme Park. VBA and JWA were sole-sourced on this project based upon both auditing and theme park experience.

Interstate Brands Corporation

Following resource and capability demonstration audits by several environmental firms, VBA was exclusively selected to conduct environmental compliance reviews of IBC Central Division bread and cake manufacturing facilities. In addition to auditing, VBA personnel provide training on conducting audits to IBC personnel and assist IBC personnel with populating the Environmental Quality Manager (EQM) Lotus Notes database licensed from the American Bakers Association. To date, VBA has conducted audits of seven IBC facilities in the Central Division, four facilities in the Western Division, and three facilities in the Eastern Division.

Kimberly-Clark Corporation

As a part of a multinational team led by InteGreyted Environmental Consultants, LLC, VBA personnel have participated in comprehensive environmental compliance audits of 26 domestic and international facilities including pulp and paper manufacturing, tissue manufacturing, medical equipment manufacturing, forestry management, R&D and ink manufacturing. As an integral component of the InteGreyted Environmental Consultants teaming arrangement, VBA personnel are members of the Kimberly-Clark preferred acquisition and divestiture team.

Union Tank Car Company

In a partnership/teaming arrangement with Environmental Compliance and Engineering, Inc., VBA was selected to conduct multimedia environmental compliance audits of fourteen UTLX railcar manufacturing and/or refurbishing facilities in calendar year 1999. The ECE / VBA team was subsequently selected to conduct of all UTLX facilities in 2001, thereby becoming the first consultants to be consecutively selected for the UTLX biennial audit program.

BAMA Foods

VBA was engaged by BAMA Foods to develop and implement an auditing program for all BAMA manufacturing plants. VBA developed facility specific audit protocols, conducted baseline facility audits and developed facility specific compliance checklists and schedules. BAMA Foods used the VBA-developed program as a building block toward ISO 14000 Certification.

Earthgrains

VBA personnel have participated and/or lead environmental compliance audits of 35 Earthgrains (formerly Campbell Taggart) facilities (including bread, bun, dough and cake plants) located throughout the United States. These audits/reviews typically included fleet operations, covered from 8 to 13 protocol topics and involved population of a Lotus Notes audit database.

Cape Cod Potato Chip

VBA was engaged by Cape Cod Potato Chips (CCPC) to develop and implement an auditing program for their Hyannis, Massachusetts manufacturing plant. VBA developed facility specific audit protocols, conducted a baseline facility audit and developed a facility specific compliance checklist and schedule. CCPC uses the facility specific checklist for on-going self-assessments.

Purina Mills, Inc.

VBA has conducted multimedia independent environmental compliance audits of ten Purina operations located through out the United States. Facilities audited include graining, milling and chow manufacturing operations, swine management operations, and research and development operations (i.e., swine, bovine and equine). Additionally, VBA completed environmental applicability determinations for twelve Purina Mills facilities located regionally throughout the United States.

Additionally, VBA personnel have participated in multi-media environmental compliance audits for The Pillsbury Company, the United States Air Force Academy, Siemens, BNSF Railroad, Pentair Corporation, The Toro Company, Stella Foods, Honeywell, Gardner Denver, Raskas Dairy, GE Lamp Division and Dana Corporation.

References for VBA's project work can be provided as needed.

Personnel

VBA personnel are active audit team leaders, audit team members and actively conduct compliance projects for multiple private and public corporations whose annual revenues range from one billion to over 40-billion. The following paragraphs provide brief biographical sketches for VBA personnel who will potentially be engaged in administration and execution of ADM Environmental Compliance Audits and/or Applicability Determinations.

René van Breusegen, E.I.T., President

Mr. van Breusegen is a degreed chemical engineer with 18 years of environmental engineering and consulting experience. He has participated in and/or led over 150 environmental compliance audits of industrial and commercial facilities located in over 30 states in the U.S., Canada and Mexico. Additionally, Mr. van Breusegen has completed over 100 compliance projects including new source permitting, emission inventories, Title V permitting, SARA reporting, SPCC plan preparation, SWPP plan preparation large scale due diligence assessments including ASTM and environmental compliance, environmental fatal-flaws analysis, and stand-alone environmental applicability determinations for facilities located throughout North America.

Prior to founding VBA, Mr. van Breusegen worked for 10 years in the environmental engineering/consulting and waste management industries.

Emmett Keegan, Associate

Mr. Keegan holds a Master of Science degree in Environmental Engineering and a Bachelor of Science degree in Biology and has 11 years compliance enforcement and compliance consulting experience. Mr. Keegan has participated in or led over 80 multi-media environmental, health and safety compliance audits located in 20+ states and two provinces of Canada; and has completed over 20 stand-alone environmental applicability determinations for facilities located throughout the United States. Additionally, Mr. Keegan has completed new source air permits, Title V

permits, NSR applicability determinations, PSD applicability determinations, Phase I assessments, emission inventories and air source modeling.

Prior to joining VBA, Mr. Keegan worked with CH2M Hill's Chicago office for one and one-half years and for over seven years with EPA Region V in air and wastewater enforcement.

Colene Tschoepe, Associate

Ms. Tschoepe holds a masters degree in Environmental Science and has 10 years of environmental consulting/auditing experience. Ms. Tschoepe has conducted over 80 environmental compliance audits and over 30 stand-alone environmental applicability determinations of industrial facilities located throughout North America. Ms. Tschoepe has served as an auditor for the United States Postal Service, Burlington Northern Santa Fe Railroad, Anheuser-Busch Companies, Pentair Corporation, Pillsbury Company, Interstate Brands Company and Coultier Foods.

Prior to joining VBA, Ms. Tschoepe's experience includes five years of consulting experience and five years in private industry.

Sharon Roberts, Associate

Ms. Roberts is a degreed chemical engineer with 16 years of industrial and consulting experience. Ms. Roberts has participated in over 75 comprehensive environmental compliance audits and completed over 10 stand-alone environmental applicability determinations for industrial facilities throughout the United States and Europe. Additionally, Ms. Roberts has completed environmental compliance projects of more than 100 industrial facilities including new source air permits, Title V permits, source tests, emission factor development, industrial wastewater permits, direct discharge permits, slug control plans, Lotus Notes training, SPCC plans, SWPP plans and process wastewater treatability studies. While working with Anheuser-Busch Companies, Ms. Roberts was instrumental in development of the Environmental Quality Manual (EQM), a Lotus Notes based environmental data management program that is currently used by multiple industrial entities.

Prior to joining VBA, Ms. Roberts worked in the environmental affairs and engineering departments of Anheuser-Busch Companies and Campbell Taggart, Inc., and as an environmental/process engineer for A.D. Little - Boston, Massachusetts.

Pamela Hesterberg, P.E., Associate

Ms. Hesterberg is a licensed Professional Engineer, holds a masters degree in Civil Engineering and has eight years of environmental engineering and consulting experience. She has participated in over 80 environmental compliance audits and completed over 15 stand-alone environmental applicability determinations for industrial facilities located throughout North America. Additionally, Ms. Hesterberg has completed environmental compliance project for more than 50 industrial facilities including emission inventories, SARA reports, industrial discharge permits, industrial sampling, Phase I assessments, Phase II investigations, groundwater sampling, SPCC/SWPP plans and certifications.

Prior to joining VBA, Ms. Hesterberg worked in the regulatory compliance group of a medium-sized environmental consulting firm and completed a one-year on-site assignment in the environmental compliance department of a large pharmaceutical manufacturing operation.

Heather Stork, P.E., Associate

Ms. Stork is a licensed professional engineer with a Bachelor of Science degree in Geological Engineering. She has eight years of multimedia environmental engineering and consulting

experience. Ms. Stork has participated in and/or led more than 10 environmental compliance audits, including development of the Environmental Compliance Guidance Manual, a regulatory compliance manual for a national healthcare organization with eighty facilities located in twenty states.

Prior to joining VBA, Ms. Stork was Vice President of Compliance Services for a Midwest based environmental engineering and consulting for whom she worked for six years in management roles and as a Geological Engineer. Additionally, Ms. Stork worked as a Geological Engineer for a Southeastern based consulting firm specializing in Department of Defense contracts and Base Realignment and Closure (BRAC) for over one year.

Lynn van Breusegen, P.E., Vice President

Ms. van Breusegen is a licensed professional engineer with masters degrees in Information Systems Management and Business Administration. She has 15 years of engineering, project management, consulting and information systems support experience within industry. Ms. van Breusegen has completed over 20 protocol specific and/or comprehensive compliance audits of industrial and institutional facilities. Ms. van Breusegen is also responsible for the operational and administrative management of VBA, including schedule coordination for professional staff.

Prior to joining VBA, Ms. van Breusegen worked for Anheuser-Busch Companies as a consultant to the Management Systems Group where she managed a team of information systems support personnel, and also worked in various engineering departments of Union Electric Company (now known as AmerenUE).

Jane Whitehouse, CIH, CSP, President – JWA

Ms. Whitehouse has a Master of Science degree in Environmental Health Sciences and is a Certified Industrial Hygienist and Certified Safety Professional. She has over 20 years of experience as a health and safety professional having worked both in industry and as a consultant. She has participated in and/or led over 100 safety and industrial hygiene assessments at industrial, commercial and educational facilities located in North America, Europe and Australia.

Prior to forming JWA, Ms. Whitehouse worked for several major consulting firms as well six years in industry including Exxon Chemicals, Purex Industries and Lockheed Missiles and Space Company.

Auditing / Compliance Tools

All VBA personnel are equipped with portable computers, up-to-date regulations by the Bureau of Natural Affairs (includes all 50 United States and is updated monthly) and portable color printers, providing for a self-sufficient and independent audit team. Unlike many smaller engineering firms, VBA has in-house information systems support provided by Ms. Lynn van Breusegen, P.E., who holds a Master Degree in Management Information Systems and worked in information systems support at Anheuser-Busch Companies prior to joining VBA full-time.

Additionally, selected VBA personnel are members of the Environmental Auditors Roundtable an organization designed to provide certification, awareness, guidance, resources, training, protocols, etc., for environmental auditing professionals.

Allied Auditing Firms

VBA has established formal working relationships with environmental compliance firms throughout the United States and Canada to provide additional auditing personnel for time sensitive, large-scale projects and for health and safety auditing. These relationships have pre-established interoffice rates and agreements providing for seamless delivery of consulting services to clients. Firms with whom VBA has formal agreements include:

- Environmental Compliance & Engineering, Inc. Aurora, Ohio;
- Kallmeyer Environmental Consulting, Inc. Covington, Kentucky; and
- JWhitehouse & Associates, Inc. Troy, New York.

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE (SPCC) PLAN

SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN

Madison Gas and Electric Company Blount Station Madison, Wisconsin

November 2002

Prepared by:

Earth Tech, Inc. 4135 Technology Parkway Sheboygan, Wisconsin 53083

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SPCC PLAN OWNER'S APPROVAL

In accordance with 40 CFR 112.7

Name of Facility: Madison Gas and Electric Company

Blount Station

Madison Gas and Electric Company is committed to the prevention of discharges of oil to navigable waters and the environment and maintains the highest standards for spill prevention, control, and countermeasures through regular review, updating, and implementation of this SPCC Plan for the [Facility Name]. Full approval and implementation of the SPCC Plan, as herein described, is extended by [Company Name] management, at a level with authority to commit the necessary resources.

Signature:			
Name:			
Title:			
Approved on:			
Spill Control and C familiar with the p attest that the plan	In a lengineer regist Countermeasure rovisions of Titl has been prepar	NGINEER CERTIFICATION coordance with 40 CFR 112.3(d) tered in the State of Wisconsin. I have reviewed the for Plan. I have examined the facility covered by the plan le 40, Part 112 of the Code of Federal Regulations. I he red in accordance with good engineering practices. Thi CFR Section 112.3(d).	. I am ereby
	SEAL:	Signature:	
		Name: (Certifying Engineer)	
		Registration No.:	
		State:	

Date:

MADISON GAS AND ELECTRIC COMPANY BLOUNT STATION MADISON, WISCONSIN

CONTACT LIST

Facility Response Coordinator Pete Casey

608-252-7313 Mike Ricciardi 608-252-5627

Operations Manager Ed Maass

608-252-7306 (office) 608-551-0870 (pager) 608-516-7935 (cell phone)

Spill Response Contractor Onyx Waste Services

920-568-2521

Heritage Environmental Services

888-377-8129

Local, State, and Federal Agencies

National Spill Response Center (NSRC) (800) 424-8802

Madison Fire Department 911

Madison Police 911 (or 266-7422)

Wisconsin Department of Natural Resources 275-3332 (normal business hours)

1-800-943-0003 (24-hour spill hotline)

Madison Metropolitan Sewerage District 222-1201

Hospital Meriter Hospital, 202 S. Park Street

(608-267-6206)

St. Marys Medical Center, 707 S. Mills Street

(608-258-6800)

UW Health 600 Highland (608-262-2398) Veterans Hospital 2500 Overlook Terrace

(608-280-7066)

Madison Public Health 266-4840

Wisconsin Division of Emergency

Government

1-800-943-0003

SPCC PLAN REVIEW

In accordance with 40 CFR 112.5(b)

Name of Facility: Madison Gas and Electric Company

Blount Station

A review and evaluation of this SPCC Plan is conducted at least once every five years. As a result of this review and evaluation, Madison Gas and Electric Company will amend the SPCC Plan within six months of the review to include more effective prevention and control technology if: (1) such technology has been field proven at the time of the review, and (2) if such technology will significantly reduce the likelihood of a discharge from the facility. Any amendment to the SPCC Plan shall be certified by a professional engineer within six months after a change in the facility design, construction, operation, or maintenance occurs which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines.

As such, Madison Gas and Electric Company management has completed a full review of the

SPCC Plan as herein described. The following results of the review are noted (check one):

| Major changes to the facility have occurred since the last review; the SPCC Plan must be updated and recertified by a registered Professional Engineer.

| No amendment to the SPCC Plan is necessary as per 40 CFR, Part 112.5(b). Minor edits to the plan have been indicated in the plan. Additional comments are attached.

| Reviewed on: _______, Amendment # _______
| Signature: ________
| Reviewer's name: _______, (five years from above date)

| (Copies of this page should be made for subsequent reviews, and all completed forms must be signed and maintained with the SPCC Plan. If the plan is amended based on the above review, a

be signed and maintained with the amended SPCC Plan).

copy of the previous page should be made and an Engineer Certification of the amendment must

1.0 INTRODUCTION

1.1 FACILITY INFORMATION

Facility Name: Madison Gas and Electric Company (MGE) Blount Station

Facility Address: 717 East Main Street

Madison, Wisconsin

Corporate Headquarters: Madison Gas and Electric Company

133 South Blair Street Madison, WI 53701 SPCC Contact:

Facility Response Coordinator:

(FRC)

Pete Casey 608-252-7313

FRC Alternate: Mike Ricciardi

608-252-5627

Facility Location and Setting: The facility is located in Dane County. Its location is shown

on Figure 1 - Site Location Map. Blount Station occupies an

area of approximately four acres.

Facility Description: Blount Station commenced operation in approximately 1910

and occupies an area bounded by Blount Street, the Chicago

& North Western Railway Company railroad tracks, Livingston Street, and East Main Street in Madison,

Wisconsin. The generating capacity of Blount Station is about 200 MW. There are nine boilers and six turbine generators at the station. The Wisconsin Pollution Discharge Elimination System (WPDES) permitted wastewater outlets discharged to an adjacent storm sewer on Blount Street, and the WPDES permitted cooling water outlets discharge directly to Lake

Monona.

Fixed Storage and Secondary

Containment:

A list of fixed storage at the facility and a description of secondary containment structures are shown on Table 1.

Figures 7-1 through 7-4 show the location of each storage

vessel.

Portable Storage:

Facility Water Discharges: The facility drainage map including discharges from Blount

Station is shown in Figure 3.

Facility Drainage: The facility drainage map including discharges from Blount

Station is shown in Figure 3.

Fuel Transfer Locations: Table 2 lists the locations at the facility where oil products are

shipped and handled. Material handling locations are shown

on the Blount Station site diagram in Figure 2.

1.2 PLAN ORGANIZATION

This SPCC Plan is designed to address spill prevention, control, and countermeasures which fall under the United States Environmental Protection Agency (USEPA) requirements. This plan discusses items of concern such as notification, countermeasure strategies, response measures, and personnel training for MGE Blount Station. In addition, the future actions to be performed by MGE to decrease the chances of an oil spill leaving the property are discussed.

2.0 REGULATORY OVERVIEW

The SPCC Plan for facilities is prepared and implemented as required by the USEPA regulations contained in Title 40, Code of Federal Regulations, Part 112 (40 CFR 112). A nontransportation-related facility is subject to SPCC Plan regulations if: (a) the aggregate aboveground oil storage capacity exceeds 1,320 gallons (excluding permanently closed containers and containers of oil with capacities less than 55 gallons) or (b) the underground storage tank (UST) capacity of oil exceeds 42,000 gallons (except permanently closed containers and containers that are subject to 40 CFR 280 or 281); and if, due to its location, the facility could reasonably be expected to discharge oil in quantities that may be harmful into or upon the navigable waters of the United States, adjoining shorelines, waters of the contiguous zone, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States.

The SPCC is not required to be filed with USEPA but a copy must be available for on-site review by the USEPA Regional Administrator during normal working hours.

The purpose of the SPCC Plan is to identify procedures and mechanisms for preventing the unplanned release of petroleum products. Owners and operators failing or refusing to comply with these federal regulations may be liable for civil penalties as provided for in 40 CFR 112.

3.0 SITE BACKGROUND

3.1 POTENTIAL EQUIPMENT FAILURES - 40 CFR 112.7(B)

Where experience indicates a reasonable potential for equipment failure, a prediction of direction and rate of flow, and quantity of oil which would be discharged from the facility as a result of each type of major equipment failure.

Source	Type of Failure	Maximum Spill	Rate of Flow	Flow Direction
Bulk fuel transfer	Leak	2000 Gallons	50 GPM	East
station				
6 Turbine Dock	Leak	2500 Gallons	50 GPM	North

The potential release volumes described above do not take into account the use of any containment or diversionary structures or equipment.

3.2 CONTAINMENT AND DIVERSIONARY STRUCTURES - 40 CFR 112.7(C)(1)

Appropriate containment and/or diversionary structures or equipment should be provided to prevent a discharge of oil and must be constructed so that any discharge from a primary containment system, such as a tank or pipe, will not escape the containment system before cleanup occurs.

The following containment or diversionary structures are utilized by Blount Station to prevent discharges of oil:

- Dikes, berms, curbing, or retaining walls sufficiently impervious to contain oil and sized to appropriately contain the stored material. The Blount Station secondary containment map is attached as Figure 4.
- Culverts, gutters, sumps, and other drainage control systems as shown in Figure 6 of the Blount Station sump map.
- Retention basins, wet well, and clarifier located in wastewater treatment building.
- Pads, booms, and other sorbent materials stored throughout the plant in oil spill kits as indicated in Figure 5.
- Hydrocarbon detectors are used to automatically divert cooling water to the waste water treatment plant when hydrocarbons are detected.

Use of these devices is described further in sections addressing bulk storage, piping, transfer operations, and tank loading.

3.3 DEMONSTRATION OF IMPRACTICABILITY - 40 CFR 112.7(D)

Clearly demonstrate the impracticability of containment systems, if necessary.

Facility Management has determined that the secondary containment and readily available equipment to prevent discharged oil from reaching navigable waters is practical and effective at this facility.

3.4 INSPECTIONS, TESTS, AND RECORDS - 40 CFR 112.7(E)

Monthly inspections will be conducted at the facility in accordance with State and Federal regulations. Components of oil piping and storage systems will be visually examined for leaks, and signs of corrosion, distress, or deterioration.

A written inspection checklist (Appendix A) shall be completed monthly and maintained at the facility. The monthly checklist is to be executed and signed by the employee conducting the inspection.

Completed checklists are kept in the facility file for a minimum of three years or as prescribed by the MGE document retention policy.

The following additional records will be maintained in the SPCC file for a minimum of three years:

- A current list of tank locations and capacities
- A record of all repairs to piping, containment, or the tanks
- A record of disposal of oil from spills
- All engineering changes made to the systems
- Training activities and personnel involved

3.5 PERSONNEL, TRAINING, AND DISCHARGE PREVENTION PROCEDURES - 40 CFR 112.7(F)

Accountable Individual: MGE Blount Station FRC as noted on contact list included in this plan.

Training: SPCC training will be part of the initial training that a new hire in Operations receives. Operations employees will receive a refresher briefing on SPCC regulations and facility-specific response procedures annually. Training records will be kept in the SPCC file at Blount Station.

<u>40 CFR Subparagraph 112.7(f)(1)</u>. At a minimum, train your oil-handling personnel in the operation and maintenance of equipment to prevent discharges and discharge protocols—applicable pollution control laws, rules, regulations, general facility operations, and the contents of the facility SPCC Plan.

All oil-handling employees at Blount Station shall be given annual training and orientation to assure competence to identify minor spills and leaks. MGE retains outside firms to respond to all discharges or spill events.

MGE personnel training shall be provided to those individuals involved with tank operation and shall be conducted while on the job under the direct supervision of the FRC or other authorized experienced personnel. Personnel training shall include the following job responsibilities:

- Supervision of proper AST filling operations
- Identification of fire fighting equipment and their operations
- Instruction in the proper gauging techniques for tanks
- Familiarization with facility operations
- Familiarization with various pollution abatement equipment (e.g., sorbents, berms, drain covers) and the use of available containment equipment
- Training in general maintenance schedules and procedures
- Review of SPCC regulations
- Review of the SPCC Plan

The training shall include techniques to prevent or recognize existing or potential oil spills, spill containment, and the appropriate notification required in the event of an oil spill.

Through training, facility personnel shall be made aware that care and good judgment are the best means of preventing a fuel spill, and monthly inspections can identify leaks that must be repaired. Facility personnel shall be instructed to:

- Exercise care in the delivery of products.
- Never leave a fuel transfer unattended.
- Keep a close watch on the product levels in the storage tank.
- Anticipate problems and take precautionary measures to prevent them. As a general rule, do not wait for problems to occur.

40 CFR Subparagraph 112.7(e)(2). Designate a person at each applicable facility who is accountable for discharge prevention and who reports to Facility Management.

The FRC or other management personnel as designated by the FRC are responsible for spill prevention.

<u>40 CFR Subparagraph 112.7(f)(3)</u>. Schedule and conduct discharge prevention briefings for your oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for that facility.

Annual meetings will be held by the FRC to review any discharges, failures, malfunctioning equipment, and any recently developed precautionary measures and responses that have been implemented at the facility.

3.6 SPILL RESPONSE PROCEDURES

MGE personnel are not trained as first responders in the event of a major release. In the event of a suspected release of petroleum products, an MGE employee will:

- Secure the area to protect all personnel and public from any immediate danger.
- Attempt to contain the spill with equipment from the appropriate spill kit (only if it is safe to do so).
- Contact MGE Environmental Compliance Hotline at (800) 488-7900 and advise them of the situation and status.

- Call 911, if necessary to alert the fire department or other emergency services.
- Contact the Operations Manager and the FRC.
- Call the Emergency Response Contractor: Onyx Waste Services 920-568-2521

Heritage Environmental Services 888-377-8129

In the event that a spill occurs during a fuel transfer operation, the initial response will be by the trucking contract personnel. The MGE Environmental Compliance Hotline must be contacted at (800) 488-7900. The Emergency Response Contractor listed above should be contacted if directed to by MGE Environmental Compliance staff. The Emergency Response Contractor will respond as appropriate.

On-site response supplies and equipment consists of eight oil spill response kits placed at appropriate locations throughout Blount Station as shown in Figure 5. Each kit contains:

- Granular oil absorbent.
- Absorbent pigs.
- Absorbent pads.
- Shop towels.
- Drain plugs.
- Plastic bags.
- Generic labels and markers.
- Incident reporting forms.
- List of emergency phone numbers.

3.7 EMERGENCY TELEPHONE NUMBERS

For immediate notification purposes:

Police, fire, and ambulance: 911

MGE - Environmental Compliance Hotline: (800) 488-7900

These contact numbers shall be posted by the bulk storage tanks using signage similar to that shown in Appendix C.

Spill Notification

In response to **any** spill, local facility personnel must immediately notify the MGE Environmental Compliance Hotline at (800) 488-7900. The Waste and Spill Incident Report Form located in the MGE Waste Management Database shall be completed and submitted to the MGE Environmental Compliance Coordinator following notification. In the event of a spill, one of the following emergency response contractors may need to be contacted:

Emergency Response Contractors: Onyx Waste Services

920-568-2521

Heritage Environmental Services

888-377-8129

Spills of oil into or upon the navigable waters (including wetlands and municipal storm water systems) of the United States or adjoining shorelines must be reported by MGE Environmental Affairs Department to the following agencies:

U.S. Coast Guard, Washington, D.C. National Response Center (24-Hour No.) (800) 424-8802 (24-Hour No.) (202) 267-2675

State Department of Natural Resources Emergency Response Unit (24-Hour No.) (800) 943-0003

However, do not make any contact with any environmental regulatory agencies unless directed to do so by MGE Environmental Affairs Department. The spill report shall include the following:

- 1. The name of the person making the report, their job title, and the name of the company
- 2. Time and date of the spill
- 3. Type of petroleum oil spilled
- 4. Approximate quantity spilled
- 5. Location and source of spill
- 6. Cause and circumstances of the spill
- 7. Existing and potential hazards
- 8. Personal injuries or casualties, if any
- 9. Corrective action being taken and an appropriate timetable to control, contain, and clean up the spill
- 10. Name(s) and telephone number(s) of individual(s) who discovered the spill
- 11. Identity of the personnel currently at the site of the spill
- 12. Other unique or unusual circumstances
- 13. Other government agencies which have been notified or will be notified

Within sixty (60) days of a spill that occurs at this facility that results in a one-time release of more than 1,000 gallons of oil or in the event that more than 42 U.S. gallons of oil is released in each of two discharges within twelve (12) months, the FRC shall submit the following information to the USEPA Regional Administrator:

- 1. Name of the facility
- 2. Name of the owner or operator of the facility
- 3. Location of the facility
- 4. Maximum storage or handling capacity of the facility and normal daily throughput
- 5. Corrective action and countermeasures taken including a description of equipment repairs and replacements
- 6. A description of the facility including plans, flow diagrams, and topographic maps
- 7. The cause(s) of such spill including a failure analysis of the system or subsystem in which the failure occurred
- 8. Additional preventative measures taken or contemplated to minimize the possibility of recurrence
- 9. Such other information the EPA Regional Administrator may reasonably require pertinent to the SPCC Plan or spill event

3.8 SECURITY - 40 CFR 112.7(G)

<u>40 CFR Subparagraph 112.7(g)(1)</u>. Fully fence each facility handling, processing, or storing oil, and lock and/or guard entrance gates when facility is not in production or is unattended.

The facility is in service and staffed with an operating crew 24 hours per day, 365 days a year. The property perimeter is completely enclosed with a combination of exterior building walls and fencing. The southern property line and the southern half of the east and west property boundaries are enclosed by a 35-foot-tall concrete panel wall. The portions of the eastern and western property lines not enclosed by the 35-foot-high wall are protected by exterior building surfaces and 8-foot-high chain-link and brick fencing. The northern property boundary is completely enclosed by a combination of 8-foot-high chain-link and brick fencing. All gates and entranceways onto plant property are kept locked.

40 CFR Subparagraph 112.7(g)(2). Ensure that the master flow and drain valves and any other valves permitting direct outward flow of the container's contents to the surface have adequate security measures so that they remain in the closed position when in nonoperating or nonstandby status.

The master drain valve on the external bulk storage tank is secured with a padlock when in a nonoperating mode. Drain valves on other petroleum product containers located within Blount Station are located in areas of controlled access.

 $\underline{40~CFR~Subparagraph~112.7(g)(3)}$. Lock the starter control on each oil pump in the "off" position and locate it at a site accessible only to authorized personnel when the pump is in a non-operating or non-standby status.

Blount Station is currently upgrading its fuel-oil transfer pumping starters to include locks on the fuel-oil pump starters to comply with this requirement. Fuel loading procedures will be modified to define authorization requirements for unlocking these starters. Installation of locks will be completed by the required rule implementation date.

<u>40 CFR Subparagraph 112.7(g)(4)</u>. Securely cap or blank-flange the loading/unloading connections of oil pipelines or facility piping when not in service or when in standby service for an extended period of time.

Cam-lok style pipe caps will be securely installed at all fuel-oil loading connections in the first quarter of 2003 and remain in place at all times **except** when fuel transferring is in progress. Fuel loading procedures will be modified to require the installation of these caps when not transferring fuel.

40 CFR Subparagraph 112.7(g)(5)(i and ii). Provide facility lighting commensurate with the type and location of the facility that will assist in the discovery of discharges occurring during hours of darkness, both by operating personnel, if present, and by nonoperating personnel and the prevention of discharges occurring through acts of vandalism.

The facility is illuminated during nondaylight hours. The lighting is sufficient to allow for observation of the exterior AST system components.

3.9 FACILITY TANK CAR AND TANK TRUCK LOADING/UNLOADING RACK - 40 CFR 112.7(H)

Tank truck loading and unloading occurs at two locations at BGS as shown in Figure 2. Those locations are:

- 1. Fuel oil transfers into and out of the Blount Station outdoor-bulk-fuel storage tank occur at the bulk tank transfer station. This station is located in the southwest corner of the Blount Station property.
- 2. Periodically tank truck unloading of bulk lubricating oils occurs at the No. 6 Turbine loading dock located in the north central zone of Blount Station.

Transfer procedures are standardized and included in Appendix E. Transfer procedures are posted adjacent to the AST area. Tank filling is performed at the tank fill port by a qualified CU transfer driver under the supervision of MGE personnel. The fuel supplier is responsible for containing or responding to spills as a result of transfer operations.

3.10 FACILITY DRAINAGE - 40 CFR 112.8(B)

Refer to Figure 3-1 – Flow drainage map for Blount Station and Figure 6 - Blount sump layout.

Storm Water

Storm water, tire wash rinse, and sumps from the coal pit and transfer tower in the coal yard drain to the wet well through the wastewater clarifier through WPDES Outfall 008 to Lake Monona. Various roof drains drain to WPDES Outfalls 001, 002 and 003. Storm water at the main gate entrance and the PDF parking lot flow through storm water Outfalls 002 and 003.

One acid and one caustic storage tank are equipped with secondary containment consisting of cast-in-place concrete structures located as shown on Figure 4. Water collected in these

3-7

structures is pumped to the wet well where it is neutralized if necessary before it enters the wastewater clarifier which discharges through WPDES Outfall 008.

Cooling Water

Noncontact cooling water pumped through the turbine condensers into Outfalls 002 or 003 back to Lake Monona. Smaller streams of cooling water are also collected in various sumps throughout the plant. Nos. 1, 6, 7 Turbines, No. 7 Boiler, and screen-house sumps/drains go directly to Lake Monona; No. 1 Turbine sump pumps into WPDES 002; and No. 7 Boiler sump pumps into WPDES 001. Nos. 6 and 7 Turbines and screen-house sumps/drains pump into WPDES 003. Sumps that discharge to the lake will be provided with hydrocarbon detection and alarms prior to the rule implementation date. All other sumps pump to a sanitary sewer and are addressed in the sanitary sewer section below.

Sanitary Sewer

There are three sanitary sewer outfalls numbered 005, 006 and 007. Outfall 005 is made up of floor drains from one softener room (rarely any flow except if floor is hosed down). Outfall 006 is made up of the sanitary sewer from the shower room and office bathrooms at Blount. Outfall 007 is made up of various process/cooling water from Blount. The sumps of No. 3 Turbine, No. 5 Turbine, No. 1 Boiler, No. 8 Boiler, and No. 9 Boiler pump to the courtyard catch basin which flows through Outfall 007 to sanitary sewer.

<u>40 CFR Subparagraph 112.8(b)(1)</u>. Restrain drainage from diked storage areas by valves to prevent a discharge into the drainage system or facility effluent treatment system except where facility systems are designed to control such discharge. You may empty diked areas by pumps or ejectors; however, you must manually activate these pumps or ejectors and must inspect the condition of the accumulation before starting to ensure no oil will be discharged.

One acid and one caustic storage tank are equipped with secondary containment consisting of cast-in-place concrete structures located as shown in Figure 4. Water collected in these structures is pumped to the wet well where it is neutralized if necessary before it enters the wastewater clarifier which discharges through WPDES Outfall 008

40 CFR Subparagraph 112.8(b)(2) - Use valves of manual, open-and-closed design for the drainage of diked areas. You may not us flapper-type drain valves to drain diked areas. If your facility drainage drains directly into a watercourse and not into an on-site wastewater treatment plant, you must inspect and may drain uncontaminated retained stormwater as provided in paragraphs (c)(3)(ii), (iii), and (iv) of 40 CFR 112.8.

[This section is not applicable to the MGE Blount Station because secondary containment structures do not drain to a water course.

<u>40 CFR Subparagraph 112.8(b)(3).</u> Design facility drainage systems from undiked areas with a potential for a discharge (such as where piping is located outside containment walls or where tank truck discharges may occur outside the loading area) to flow into ponds, lagoons, or catchment basins designed to retain oil or return it to the facility. You must not locate catchment basins in areas subject to periodic flooding.

Not Applicable.

40 CFR Subparagraph 112.8(b)(4). If facility drainage is not engineered as in 40 CFR Subparagraph 112.8(b)(3), equip final discharge of all ditches inside the facility with a diversion system that would, in the event of an uncontrolled discharge, retain oil in the facility.

Not Applicable.

<u>40 CFR Subparagraph 112.8(b)(5)</u>. Where drainage waters are treated in more than one treatment unit as such treatment is continuous and pump transfer is needed, provide two "lift" pumps and permanently install at least one of the pumps.

Storm water drainage is collected in the coal yard wet well. There are two 100-gpm pumps and one 900-gpm pump permanently installed in the wet well. Pump operation is controlled by a float system. The two 100-gpm pumps normally transfer all incoming drainage to the wastewater treatment building. If these two pumps are unable to keep up, the 900-gpm pump automatically comes on.

In-plant drainage is forwarded from each collection sump using level controlled sumps. Each sump has two permanently installed sumps. The sump level controls are set to operate the pumps as primary and secondary.

3.11 BULK STORAGE TANKS - 40 CFR 112.8(C)

<u>40 CFR Subparagraph 112.8(c)(1)</u>. Not use a container for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as temperature and pressure.

The Blount Station fuel-oil storage tanks are site-constructed welded steel-sheet constructions designed for nonpressurized fuel-oil storage under ambient temperatures encountered in Madison, Wisconsin.

<u>40 CFR Subparagraph 112.e(c)(2)</u>. Construct all bulk storage container installations so that you provide a secondary means of containment for the entire capacity of the largest single container and sufficient freeboard to contain precipitation. You must ensure that diked areas are sufficiently impervious to contain discharged oil.

Concrete dike containment walls are present around the Blount Station fuel-oil storage tanks to create a means of secondary containment. The floors of these containment dikes are made of compacted chrused 3/4" stone with fines.

In 2000, Blount Station improved the AST secondary containments by installing welded steel "false bottoms" above the original tank bottoms to create secondary containment interstitial spaces.

40 CFR Subparagraph 112.8(c)(3). Not allow drainage of uncontaminated rainwater from the diked area into a storm drain or discharge of an effluent into an open watercourse, lake, pond, bypassing the facility treatment system unless you: (1) normally keep the

bypass valve sealed closed; (2) inspect the retained rainwater to ensure that its presence will not cause a discharge as described in 40 CFR 112.1(b); (3) open the bypass valve and reseal it following drainage under responsible supervision; and (4) keep adequate records of such events.

Not applicable.

40 CFR Subparagraph 112.8(c)(4). Protect any completely buried metallic storage tank installed on or after January 10, 1974 from corrosion by coatings or cathodic protection compatible with local soil conditions. You must regularly leak test such completely buried metallic storage tanks.

This section is not applicable to MGE Blount Station because there are no buried tanks on-site.

<u>40 CFR Subparagraph 112.8(c)(5)</u>. Not use partially buried or bunkered metallic tanks for the storage of oil unless you protect the buried section of the tank from corrosion. You must protect partially buried and bunkered tanks from corrosion by coatings or cathodic protection compatible with local soil conditions.

This section is not applicable to MGE Blount Station because there are no partially buried tanks on-site

<u>40 CFR Subparagraph 112.8(c)(6)</u>. Aboveground tanks must be subject to regular integrity testing (such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of nondestructive shell testing) in addition to visual inspections.

Blount Station uses API 653 procedures and protocol in routine inspection and integrity testing of its fuel-oil storage tanks.

<u>40 CFR Subparagraph 112.8(c)(7)</u>. Monitoring for leaks from internal heating coils is required.

The fuel oil tanks at Blount Station do not contain heating coils.

<u>40 CFR Subparagraph 112.8(c)(8)</u>. Engineer or update each container installation in accordance with good engineering practices to include at least one of the following: high-liquid-level alarms with an audible or visible signal, high-liquid-level pump cutoff devices, direct audible link between the tank gauges and pumping station, and fast response direct reading systems.

Blount Station has developed and will implement plans to install high-liquid-level alarms, high-liquid-level pump cutoff devices, direct audible links between the tank gauge and pumping station, and fast response direct reading systems for its fuel-oil storage tanks. Improvements will be implemented by the date required by the rule.

<u>40 CFR Subparagraph 112.8(c)(9)</u>. Observe effluent treatment facilities frequently for discharges.

Treatment facility effluent is sampled and tested as required by the Blount Station WPDES permit.

40 CFR Subparagraph 112.8(c)(10). Visible oil leaks from seams, gaskets, piping, pumps, valves, rivets, and bolts should be promptly corrected.

Any piece of equipment discovered to be leaking during our monthly inspection will be repaired or replaced as soon as operating conditions and repair resources allow.

40 CFR Subparagraph 112.8(c)(11). Mobile tanks should be staged to avoid a discharge and provide secondary containment sufficient to contain the capacity of the largest single compartment with sufficient freeboard to contain precipitation.

The coal yard wet well will provide secondary containment sufficient to contain the largest single compartment of any tank truck servicing the Blount Station bulk fuel handling facility. Our spill response guidelines require that wet well transfer pumps be taken out of service immediately in response to a spill.

A movable structural partition will provide secondary containment sufficient to contain the largest single compartment of any tank truck servicing the Blount Station No. 6 Turbine dock. Our spill response guidelines require that this movable partition be in place prior to unloading any fuel truck in this area.

3.12 FACILITY TRANSFER OPERATIONS, PUMPING, AND FACILITY PROCESS - 40 CFR 112.8(D)

Tank truck loading and unloading occurs at two locations at Blount Station. Transfers into and out of the outdoor bulk fuel storage tank occur at the bulk tank transfer station. This station is located in the southwest corner of the Blount Station property. Periodically, tank truck unloading also occurs at the No. 6 Turbine loading dock located in the north central zone of Blount Station. Both of these locations are shown on Dwg. BGS-MG-GPLT-0927 Internal oil transfer occurs throughout the plant at the locations indicated in Table 1. The complexity of each system varies depending upon the size of the equipment. The most significant transfer operations occur at the turbine generators shown in Figure 7-3 – First Floor.

40 CFR Subparagraph 112.8(d)(1). Buried piping installations should have a protective wrapping and coating and be cathodically protected if necessary.

All underground oil piping installed after August 16, 2002, will be properly wrapped and coated. All existing under ground piping will provided with cathodic protection.

40 CFR Subparagraph 112.8(d)(2). Not in-service piping should be capped or blank-flanged and marked.

If any oil piping is taken out of service at Blount Station, it will be capped or blind flanged.

40 CFR Subparagraph 112.8(d)(4). Aboveground valves and piping should be regularly examined by operating personnel and periodically tested.

All aboveground valves and piping are inspected monthly.

<u>40 CFR Subparagraph 112.8(d)(5)</u>. Vehicular traffic should be properly warned of aboveground piping or other oil transfer operations.

Proper warning signs are installed near all piping exposed to vehicular traffic.

3.13 STATE-SPECIFIC ISSUES

All ASTs at Blount Station that are subject to COMM 10 are properly registered.

3.14 CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA CHECKLIST (112.20)

This facility does not have the potential to cause substantial harm based on the criteria in Attachment C-II in Appendix C of 40 CFR 112 because:

- The facility does not transfer oil over water to or from vessels.
- The facility's total oil storage capacity is less than one million gallons.

This facility does not have a high potential to cause injury to an environmentally sensitive area or shut down a public drinking water intake. Therefore, the facility is not subject to Facility Response Plan (FRP) requirements in 40 CFR 112.20 and 112.21 and is not required to prepare an FRP.

MGE - Blount Generating Station
DRAFT
SPCC Plan

TABLE 1

OIL STORAGE CONTAINERS AND SECONDARY CONTAINMENT MGE - BLOUNT STATION

SPCC Oil Storage Inventory November 14, 2002

Blount Generating Station

9b0-0	9-B-0	9A Mill Oil Reservoir	110	Amer Ind 150	Sump	Dip Stick
9b0-1		9B Mill Oil Reservoir	110	Amer Ind 150	Sump	Dip Stick
9brf-0 9brf-1	9-B-Roof	9 Precipitator Inlet Rectifier Transformer9 Precipitator outlet Rectifier Transformer	96 96	Mineral Mineral	Wet well Wet well	Level Gauge Level Gauge
8b0-0	8-B-0	8A Mill Oil Reservoir	110	Amer Ind 150	Sump	Dip Stick
8b0-1		8B Mill Oil Reservoir	110	Amer Ind 150	Sump	Dip Stick
8b2-0	8-B-2	8 Station Service No.1 Transformer	172	Mineral	Sump	Level Gauge
8b2-1		8 Station Service No. 2 Transformer	172	Mineral	Sump	Level Gauge
8b2-2		Lighting Transformer	148	Mineral	Sump	Level Gauge
8brf-0	8-B-Roof	8 Precipitator Inlet Rectifier Transformer	96	Mineral	Wet well	Level Gauge
8brf-1		8 Precipitator outlet Rectifier Transformer	96	Mineral	Wet well	Level Gauge
7b0-0 7b0-1 7b0-2	7-B-0	7A Mill Oil Reservoir 7B Mill Oil Reservoir 20CA Oil Separation Barrel - 1 @ 55 gallons	92 92 55	Amer Ind 150 Amer Ind 150 Waste/XL700	Sump Sump Sump	Dip Stick Dip Stick Visual
7b0-3		6T Vapor Extraction Barrel - 1 @ 55 gallons	55	Waste/GST 32	Sump	Visual

SPCC Oil Storage Inventory November 14, 2002						
7b0-4		Used Oil Collection Barrel - 2 @ 55 gallons	110	Waste/GST 32/ XL700	Berm	Visual
7brf-0 7brf-1	7-B-Roof	7 Precipitator Inlet Rectifier Transformer 7 Precipitator outlet Rectifier Transformer	96 96	Mineral Mineral	Wet well Wet well	Level Gauge Level Gauge
6b5-0	6-B-5	6 Blr FD Fan Hydraulic Coupling Reservoir	66	MV Prem. Rykon	Sump	Sight Glass
6b6-0	6-B-6	6 Blr ID Fan Hydraulic Coupling Reservoir	200	MV Prem. Rykon	Sump	Sight Glass
5b0-0 5b0-1	5-B-0	5A Mill Oil Reservoir 5B Mill Oil Reservoir	55 55	Amer Ind 460 Amer Ind 460	Sump Sump	Dip Stick Dip Stick
1ws0-0	1-WS-0	14CA Used Oil Collection - 2 @ 55 gallons	110	Waste/XL700	Sump	Visual
1ws1-0	1-WS-1	Oil Storage Room - 32 @ 55 gallons	1760	Various	Sump	Visual
7t0-0 7t0-1 7t0-2 7t0-3	7-T-0	7T Oil Filter Tank Oil Separation Barrel - 1 @ 55 gallons Used Oil Collection Barrel - 1 @ 55 gallons Used Oil Storage Tank	330 55 55 3000	GST 32 Waste/GST 32 Waste/GST 32 GST 32	Sump Sump Berm/Sump Sump	Sight Glass Visual Visual Sight Glass
7tm-0 7tm-1 7tm-2 7tm-3	7-T-Mez	Used Oil Collection Barrel - 1 @ 55 gallons Transformer 7T Oil Coolers A & B 7T Oil Reservoir	55 148 159 2445	Waste/GST 32 Mineral GST 32 GST 32	Sump Berm/Sump Sump Sump	Visual None None Level Gauge
7t2-0	7-T-2	9 Blr FD Fan Hydraulic Coupling Reservoir	66	MV Prem. Rykon	Wet well	Sight Glass
7t2-1		9 Blr ID Fan Hydraulic Coupling Reservoir	220	MV Prem.	Wet well	Sight Glass

SPCC Oil Storage Inventory November 14, 2002						
				Rykon		
6t2-0 6t2-1	6-T-0	6T Oil Filter Tank New Oil Storage Tank	330 3000	GST 32 GST 32	Sump Sump	Sight Glass Sight Glass
6tm-0 6tm-1	6-T-Mez	6T Oil Coolers A & B 6T Oil Reservoir	159 2445	GST 32 GST 32	Sump Sump	None Level Gauge
6t1-0	6-T-1	Used Oil Collection Barrels - 11 @ 55 gallons	605	Waste/Various	Berm/Sump	Visual
6t1-1		New Oil Barrels - 6 @ 55 gallons	330	Various	Berm/Sump	N/A
6t1-2		Oil Waste Barrel (filters) - 1 @ 55 gallons	55	Waste/Various	Berm/Sump	Visual
6t2-0	6-T-2	8 Blr FD Fan Hydraulic Coupling Reservoir	66	MV Prem. Rykon	Wet well	Sight Glass
6t2-1		8 Blr ID Fan Hydraulic Coupling Reservoir	220	MV Prem. Rykon	Wet well	Sight Glass
5t0-0	5-T-0	5T Oil Coolers A & B	235	GST 32	Sump	None
5t0-1	5 1 0	5T Oil Reservoir and Filter Tank	900	GST 32	Sump	Sight Glass
5t0-2		5T Iron Horse Oil Tank	300	GST 32	Sump	Sight Glass
5t0-3		Oil Separation Barrel - 1 @ 55 gallons	55	Waste/GST 32	Berm/Sump	Visual
4t1-0	4-T-1	Oil Waste Barrel (pads) - 1 @ 55 gallons	55	Waste/Various	Sump	Visual
4t0-0	4-T-0	4T Oil Coolers A & B	283	GST 32	Sump	None
		4T Oil Filter Tank	473	GST 32	Sump	Sight Glass
		4T Oil Reservoir	2400	GST 32	Sump	Level Gauge
3t0-0	3-T-0	3T Oil Coolers A & B	106	GST 32	Sump	None
3t0-1		3T Oil Filter Tank	540	GST 32	Sump	Sight Glass
3t0-2		3T Oil Reservoir	3150	GST 32	Sump	Level Gauge
3t0-3		No. 2 SS Transformer	180	Mineral	Berm/Sump	None

MGE - Blount Generating Station
DRAFT
SPCC Plan

SPCC Oil Storage Inventory November 14, 2002						
1t1-0	1-T-1	1T Oil Reservoir	300	GST 32	Sump	Sight Glass
1t1-1		1T Oil Filter Tank	90	GST 32	Sump	Sight Glass
1t1-2		1T Oil Cooler	375	GST 32	Sump	None
1b1-0	SW Loading Dock	Used Transformer Oil Collection Barrels - 1 @ 55 gallons	55	Mineral	Berm/Sump	Visual
1b1-1		Waste Oil Barrel - 1 @ 55 gallons	55	Waste/Various	Berm/Sump	Visual
Blount Coal Yard						
cy-0	1-CUA	No. 1 Station Service Transformer	180	Mineral	Wet well	Level Gauge
cy-1		End Loader	120	Diesel No. 2	Wet well	Dip Stick
cy-2		Guzzler Truck	95	Diesel No. 2	Wet well	Dip Stick
Gas Pressure House						
gph-0	Enginator Room	Enginator Crank Case and Filter Tank	65	Chev 541	None	Dip Stick
gph-1	ROOM	Oil Barrel - 1 @ 55 gallons	55	Chev 541	None	Visual

Container locations shown on

Figures 7-1 thru 7-7

TABLE 2

LOCATIONS WHERE OIL PRODUCTS ARE SHIPPED AND HANDLED MGE BLOUNT STATION

Location	Material	Frequency of Handling
Bulk tank transfer station	Fuel oil	Once per month
6 turbine loading dock	Lubricating oils	Twice per month

		FIGURES	
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APPENDIX A MONTHLY FACILITY INSPECTION CHECKLIST

Monthly Facility Inspection Checklist for: MGE Blount Station

Instructions: This inspection record will be completed monthly. Place an "X" in the appropriate box for each item. If any response requires explanation, do so in the *Descriptions and Comments* space provided. Further descriptions or comments should be attached on a separate sheet of paper if necessary.

<u>Tank</u>	OK (CON	ICERN	<u>Descriptions and Comments</u> (Indicate if Not Applicable)
Tank surface shows signs of leakage				
Tank is damaged, rusted, or deteriorated				
Bolts, rivets, or seams are damaged				
Tank supports are deteriorated or buckled				
Tank foundation has eroded or settled				
Level gauge or alarms are inoperative				
Vents are obstructed				
Valve seals or gaskets are leaking				
Pipelines or supports are damaged or deteriorated				
Fill-port access damaged or unlocked				
Pipes show signs of leakage				
Secondary Containment				
Containment berm has no signs of erosion				
Containment berm has not been structurally damaged				
There is no evidence of oil accumulation within berm				
Spill Containment Materials				
Bags of oil sorbent are present at the facility				
Sorbent is usable (i.e., not hydrated)				
Sorbent is located near tank and fill pipes				
Absorbent booms are present at the facility				

Signature:	

APPENDIX B ANNUAL TRAINING OUTLINE AND PARTICIPANT RECORD

ANNUAL SPCC TRAINING OUTLINE AND PARTICIPANT RECORD MGE BLOUNT STATION

1. REVIEW OF SPCC RULES AND PURPOSE

2. REVIEW OF SPCC PLAN

Storage and containment system Loading procedures Potential sources of spills or leaks

3. PLAN MODIFICATIONS

Have storage or equipment changes taken place?

Do they represent new or different spill or response potentials?

Are there improvements that can be recommended for the plan or prevention activities?

4. DISCUSSION OF PLAN IMPLEMENTATION

Training Date: _____

Review of spill prevention activities Review of routine inspection forms and procedures Review of spill response equipment inventories and locations Review of responsibilities and notification procedures Past spills and lessons learned

	Signature	Printed Name
aining Presented By:		
tendees:		

APPENDIX C EMERGENCY RESPONSE SIGN

IN CASE OF A SPILL EMERGENCY

CONTACT:

Madison Gas and Electric Company

Environmental Compliance Hotline

1-800-488-7900

If an immediate threat to human health or safety exists, evacuate the area and then call:

911

APPENDIX D

MGE WASTE AND SPILL INCIDENT REPORT FORM

LOCATED IN ELECTRONIC FORMAT ON MGE WASTE MANAGEMENT DATABASE

APPENDIX E STANDARDIZED TRANSFER PROCEDURES

Loading Fuel to DG Tanker - Using 'A' Fuel Oil Transfer Pump

Before fuel transfer operations start check that the following precautions are taken:

- Proper safety guidelines have been reviewed and observed (Attachment A).
- Spill response guidelines have been reviewed (Attachment B).
- Oil sampling requirements have been reviewed (Attachment C).
- A pre-job briefing has been given by the lead operator with all involved present.
- Place portable cover and berm over the loading station driveway manhole cover. If a leak occurs
 while pumping, shut off the pump and isolate the source immediately. Inform Operations
 Supervisor.

<u>Check</u>	<u>Description</u>
	Attach the loading hose to the tranfer station loading pipe and lock in place.
	Verify with the driver that the loading hose is properly connected at the truck.
	Open transfer station valves to line up the system to the storage tank.
-	 Open valve BOOFO-014 (common fuel oil isolation valve). Open valve BOOFO-005 ('A' pump inlet isolation valve). Open valve BOOFO-012 ('A' pump outlet isolation valve). Open valve BOOFO-011 (fuel oil transfer header valve). Open hose connect isolation valve. Monitor system for proper operation during pumping. Stay in constant communication with the driver.
	Start 'A' fuel oil transfer pump. Check all connections and fittings for fuel leaks.
0	Stop 'A' fuel oil transfer pump when tanker driver indicates tanker is full. Close hose connect isolation valve. Use back suction from tanker onboard pump or gravity to drain residual fuel in the hose to the tanker. Isolate transfer station from the storage tank.
	 Close valve BOOFO-014 (common fuel oil isolation valve). Close valve BOOFO-005 ('A' pump inlet isolation valve). Close valve BOOFO-012 ('A' pump outlet isolation valve). Close valve BOOFO-011 (fuel oil transfer header valve).
	Place oil pad at supply hose connections and detach supply hose. Clean and store hose so that residual fuel oil does not spill.
	Complete form 2454 03/02, Hazardous Materials Shipping Paper. Return yellow copy to supervisor.
	 Have the driver get an oil sample from the full tanker. Send sample to the lab.

Loading Fuel to DG Tanker - Using 'B' Fuel Oil Transfer Pump

Before fuel transfer operations start, check that the following precautions are taken:

- Proper safety guidelines have been reviewed and observed (Attachment A).
- Spill response guidelines have been reviewed (Attachment B).
- Oil sampling requirements have been reviewed (Attachment C).
- A pre-job briefing has been given by the lead operator with all involved present.
- Place portable cover and berm over the loading station driveway manhole cover. If a leak occurs while pumping, shut off the pump and isolate the source immediately. Inform Operations Supervisor.

<u>Description</u>
Attach the loading hose to the transfer station loading pipe and lock in place.
Verify with the driver that the loading hose is properly connected at the truck.
Open transfer station valves to line up the system to the storage tank.
 Open valve BOOFO-014 (common fuel oil isolation valve. Open valve BOOFO-013 (transfer point interconnect valve). Open valve BOOFO-006 ('B' pump inlet isolation valve). Open valve BOOFO-010 ('B' pump outlet isolation valve). Open valve BOOFO-011 (fuel oil transfer header valve). Open hose connection isolation valve. Monitor system for proper operation during pumping. Stay in communication with the driver. Start 'B' fuel oil transfer pump. Check all connections and fittings for fuel leaks.
Stop 'B' fuel oil transfer pump when tanker driver indicates tanker is full. Close the hose connection isolation valve. Use back suction from tanker onboard pump or gravity to drain residual fuel in the hose to the tanker. Isolate transfer station from the storage tank.
 Close valve BOOFO-014 (common fuel oil isolation valve). Close valve BOOFO-013 (transfer point interconnect valve). Close valve BOOFO-006 ('B' pump inlet isolation valve). Close valve BOOFO-010 ('B' pump outlet isolation valve). Close valve BOOFO-011 (fuel oil transfer header valve). Place oil pad at supply hose connections and detach supply hose. Clean and store hose so that residual fuel oil does not spill. Complete form 2454 03/02, Hazardous Materials Shipping Paper. Return yellow copy
to supervisor.
1. Have the driver get an oil sample from the full tanker. Send sample to the lab.

Off-loading Fuel to Blount Tank - Using 'A' Fuel Oil Transfer Pump and Transfer Point Interconnect Isolation Valve

Before fuel transfer operations start, check that the following precautions are taken:

- Proper safety guidelines have been reviewed and observed (Attachment A).
- Spill response guidelines have been reviewed (Attachment B).
- Oil sampling requirements have been reviewed (Attachment C).
- A pre-job briefing has been given by the lead operator with all involved present.
- Place portable cover and berm over the loading station driveway manhole cover. If a leak occurs while pumping, shut off the pump and isolate the source immediately. Inform Operations Supervisor.

Check	<u>Description</u>		
	Have driver get an oil sample from the oil tanker.		
	Bring oil sample to the Lab and wait for permission from Lab to off-load.		
	Verify oil tank has sufficient space to receive the fuel shipment.		
	Attach the unloading hose to the transfer station receiving pipe and lock in place.		
	Monitor system for proper operation during pumping. Stay in constant communication with driver.		
	Open transfer station valves to line up the system to the storage tank.		
	 Open valve BOOFO-002 (transfer point isolation valve). Open valve BOOFO-013 (transfer point interconnect isolation valve). Open valve BOOFO-005 ('A' transfer pump inlet isolation valve). Open valve BOOFO-009 ('A' transfer pump outlet isolation valve). 		
	Start 'A' fuel oil transfer pump. Check all connections and fittings are free of fuel leaks.		
	Stop 'A' fuel oil transfer pump when tanker driver indicates tanker is empty or when the Blount tank is full. Gravity-drain supply hose back to transfer station. Close valve BFOOFO-002 (transfer point isolation valve).		
	Isolate transfer station from the storage tank.		
	 Check closed valve BOOFO-002 (transfer point isolation valve). Close valve BOOFO-013 (transfer point interconnect isolation valve). Close valve BOOFO-005 ('A' transfer pump inlet isolation valve). Close valve BOOFO-009 ('A' transfer pump outlet isolation valve). Place oil pad at supply hose connections and detach supply hose. Clean and store hose so that residual fuel oil does not spill. 		

SPILL RESPONSE GUIDELINES - FUEL TRANSFER STATION

If a fuel oil spill threatens to run into manholes or outside the Blount gate, perform the following action:

- 1. Notify supervisor there has been a spill.
- 2. Stop the spill at the source immediately if possible.
- 3. Immediately contain the spill using the oil spill kit:
- Place booms across Blount Street entrance.
- Cover and berm manholes to prevent oil from entering drains and wet well.
- 4. Shut off wet well pumps (WWB-1).
- Shut off water sources to the wet well:
- Stop hosing down coal yard area.
- Shut off tire wash water (WWB-0).
- Check that Nos. 6 and 7 Turbines sumps are diverted to the lake (6/7-T-0).
- Check that flash tank is diverted to sanitary sewer (8-B-0).
- Check that Nos. 8 and 9 fan floor cooling water is diverted to sanitary sewer (7-T-1).
- 5. Call the Environmental Department for assistance at Extensions 7311, 7396, 7275, or 7321.
- Stop hosing down coal yard area.
- Shut off tire wash water (WWB-0).
- Check that Nos. 6 and 7 Turbines sumps are diverted to the lake (6/7-T-0).
- Check that flash tank is diverted to sanitary sewer (8-B-0).
- Check that Nos. 8 and 9 fan floor cooling water is diverted to sanitary sewer (7-T-1).
- 6. Call the Environmental Department for assistance at Extensions 7311, 7396, 7275, or 7321.

GLOSSARY OF ACRONYMS

BMPs - Best	Management	Practices
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CEAG - Community Environmental Advisory Group

CSC - MGE's Central Service Center

DNR - Department of Natural Resources

DOA - Wisconsin Department of Administration

ECA - Environmental Cooperative Agreement

ECAP - Emission Control Action Plan

EMS - Environmental Management System

ETD - Electric Transmission and Distribution

FRC - Facility Response Coordinator

FRP - Facility Response Plan

FSEI - Facility Source Exposure Inspection

METforce - Management Environmental Task Force

MGE - Madison Gas and Electric Company

MGF - Madison General Fuels

MPAP - Malfunction Prevention and Abatement Plan

QA/QC Manual - Quality Assurance/Quality Control Manual

SMI - Stormwater Management Inc.

SPCC - Spill Prevention, Control, and Countermeasure Plan

SW PPP - Storm Water Pollution Prevention Plan

USEPA - U.S. Environmental Protection Agency

UST - Underground Storage Tank

VBA - Van Breusegen & Associates, Inc.

VOCs - Volatile organic compounds

WDNR - Wisconsin Department of Natural Resources

WPDES - Wisconsin Pollution Discharge Elimination System